

THE
MANCHESTER SCHOOL
OF
ECONOMIC AND SOCIAL
STUDIES

VOLUME IV

1933

KRAUS REPRINT
Nendeln/Liechtenstein
1970

Reprinted by permission of the original publishers

KRAUS REPRINT

A Division of

KRAUS-THOMSON ORGANIZATION LIMITED

Nendeln/Liechtenstein

1970

Printed in Germany

Lessingdruckerei Wiesbaden

The Manchester School

Edited by

S. G. ROBERTS and J. STAFFORD

Chairman of the Editorial Board

Professor G. W. DANIELS

	PAGE
AN ECONOMIST LOOKS AT PLANNING - - - T. E. GREGORY	1
THE CIRCULATION OF MONEY IN RELATION TO PRODUCTION AND EMPLOYMENT - - - G. W. DANIELS	15
THE PROBLEM OF VALUE - - - - - JACK STAFFORD	30
THE WHEAT ACT 1932 - - - - - S. G. ROBERTS	41

REVIEWS

	PAGE
BROWN, (A.)	<i>The Railway Problem</i> 56
CAMPBELL, (C. D.)	<i>British Railways in Boom and Depression</i> 61
COLE, (G. D. H.)	<i>British Trade and Industry—Past and Future</i> 63
FENELON, (K. G.)	<i>Railway Economics</i> 56
GINSBERG, (M.)	<i>Studies in Sociology</i> 62
KEYNES, (J. M.)	<i>The Means to Prosperity</i> 65
NEAL, (L. E.)	<i>Retailing and the Public</i> 55
SCHACHT, (H.)	<i>The End of Reparations</i> 59
WICKSTEED, (P. H.)	<i>The Common Sense of Political Economy</i> 59

The Editorial Board welcomes contributions, especially from graduates of the Victoria University, who by virtue of their positions in business and the professions, are capable of making valuable contributions to economic literature.

Matter intended for publication should be sent to *The Editors*, THE MANCHESTER SCHOOL, *Department of Economics, The University, Manchester, 13.*

THE MANCHESTER SCHOOL is published in the spring and autumn, and circulated for an annual subscription of five shillings. Enquiries for and subscriptions to this journal should be addressed to *The University Press, 23, Lime Grove, Oxford Road, Manchester, 15.*

Cheques and postal orders should be made payable to *The University Press.*

The Manchester School

Edited by

S. G. ROBERTS and J. STAFFORD

Chairman of the Editorial Board

Professor G. W. DANIELS

	PAGE
TRADE FLUCTUATIONS AND ACCIDENTS TO RAILWAY EMPLOYEES - - - C. DOUGLAS CAMPBELL	69
FREEDOM AND PLANNING: A REPLY TO PROFESSOR GREGORY - - - H. D. DICKINSON	82
ECONOMIC TREND AND GOVERNMENT INTERFERENCE - - - C. T. BRUNNER	90
REFLECTIONS ON SOME DIFFERENCES BETWEEN ECONOMISTS - - - JACK STAFFORD	98
THE ECONOMIC NATURE OF PUBLIC UTILITIES PHILIP CHANTLER	109

REVIEWS

	PAGE
DURBIN, (F. E. M.)	<i>Purchasing Power and Trade Depression: a critique of under- consumption theories</i> 116
ELLINGER, (B.)	<i>This Money Business</i> 116
HODSON, (H. V.)	<i>Economics of a Changing World</i> , 125
KISCH, (C. H.)	<i>The Portuguese Bank Note Case</i> 122
KISCH, (C. H.), and ELKIN (W. A.)	<i>Central Banks</i> 116
MILLER, (M.) and CAMPBELL, (D.)	<i>Financial Democracy</i> 124
NEWBOLD, (W.)	<i>Democracy, Debt, and Disarmament</i> 118
PIGOU, (A. C.)	<i>The Theory of Unemployment</i> 120

The Editorial Board welcomes contributions, especially from graduates of the Victoria University, who by virtue of their positions in business and the professions, are capable of making valuable contributions to economic literature.

Matter intended for publication should be sent to *The Editors*, THE MANCHESTER SCHOOL, Department of Economics, The University, Manchester, 13.

THE MANCHESTER SCHOOL is published in the spring and autumn, and circulated for an annual subscription of five shillings. Enquiries for and subscriptions to this journal should be addressed to *The University Press*, 23, Lime Grove, Oxford Road, Manchester, 15.

Cheques and postal orders should be made payable to *The University Press*.

AN ECONOMIST LOOKS AT PLANNING¹

I

To plan is to adjust means to ends : and any individual whose mental horizon extends beyond the mere satisfaction of momentary wants, who thinks of to-morrow as well as of to-day, must necessarily subordinate his impulses, the unco-ordinated raw material of action, to some kind of order. He must choose between this and that, between the nearer and the more remote in time, the greater and the smaller satisfaction, the more or the less urgent need, the ethically more or less desirable. Planning in one sense and rational action are in fact identical : and without a measure of rationality neither individuals nor societies of individuals could possibly persist. Property in the sense of ownership rights, and capital in the sense of apparatus of every degree of simplicity or complexity, are the legal and the economic embodiments of purposes and of the means to their satisfaction, and Property and Capital in some form are as old as civilisation itself. Why is it, then, that Economic Planning should represent of all the slogans of the last two decades the latest in point of time and the most universal in its appeal ? Planning has won assent from the Diehards of the Right and from the Revolutionaries of the Left, and its victims, as befits a conflict fought with religious fervour, can already be numbered by thousands. In the name of Planning the Soviet has exterminated the Russian Bourgeoisie and Bourgeois Germany appears on the point of exterminating the German Communists ; in the name of Planning, also, Great Britain is in process of reversing the policy of three-quarters of a century and is subordinating the interests of the urban majority to the agrarian minority. The truth is that Economic Planning involves something more than the mere adjustment of means to ends, it involves also the *conscious choice of ends* and the problems which it involves relate therefore both to the ends it is proposed to further and the means by which they are to be reached. Economic Planning is a duality, then, of means and ends.

¹ Originally read before the Manchester University Ethical Society in the autumn of 1932 but expanded and brought up-to-date since.

It is this duality which gives it its fascination, it is this duality also which in the end will prove fatal to it.

It is characteristic of all great movements which capture the minds of masses of men that though their objectives can be stated in rational terms, they are carried to fruition by the emotions and the will more than by the intellect. In what hidden sources of emotion is one to find the secret of the astonishing ease with which the idea of Economic Planning is gaining ground in such diverse quarters? These sources are many: some of them are intrinsically admirable, others are perhaps less praiseworthy, and for that very reason have received less attention than they deserve as explanations of the popularity of the movement now under examination.

II

There are two varieties of human temperament especially prone to be attracted by the idea of a planned economy: the constructive and the meddlesome. Mr. H. G. Wells has made the world familiar with the first type in a whole series of brilliant portrait studies. He, himself, one imagines, is of this type—scientifically trained, impatient of the crudities and superficial follies of the economic and legal systems, contemptuous of money-making, single-minded lovers of manipulation, whether of machinery, materials, or systems and organisation. They think of the world in terms of the laboratory, they love the controlled experiment, the orderliness and clean simplicity of Applied Science. Men of this temperament have contributed enormously to the making of the modern world. From all that one can glimpse of Russia it is men like these who are the real heroes of the revolution. The technician there is creating a new civilisation in his own image. The other type is intrinsically a good deal less admirable; but do we not all know the man or woman who is only happy when they are interfering with other people? The essence of planning is that it involves a plan, and a plan involves order, subordination, interference, power. For that very reason the idea of planning appeals to those to whom the existing order of things represents Chaos, Anarchy, Licence, Competition—they itch to have a finger in the pie; they cannot forget the War and the scope which it gave for the satisfaction of the desire to assert oneself at the expense of others; it is less the virtues of the plan than the opportunities which it affords of the exercise of Power which attracts men of this type. It is, of course, part of the fashionable cant of the

age to deny that motives of this kind are significant. All planners, it appears, are public-spirited individuals in contrast to the sordid self-seekers of the economic world ; but if, as Adam Smith asserted, one should be suspicious of traders who profess only the public good, one should also have enough sense of humour to realise that not all professed planners are insensible to the private advantage which would accrue to them if the Fates prove kind, and they among mankind are chosen to lead us to the Promised Land. I think that when one is investigating the underlying strength and weaknesses of a world-wide movement, politeness is out of place. *Some* part of the attractiveness of planning to *some* people lies in the opportunities it affords for the exercise of power, and to exercise power is sweet to some, perhaps a very large number of individuals. Those whose desire to exercise authority is partly or wholly frustrated by the present order must inevitably desire to see a change of system.

The mass of men, no doubt, are neither moved by the desire to wield influence nor by the desire to create ; they desire happiness, security, excitement—perhaps, above all, security in middle and old age and excitement in youth. Since Economy Planning represents at present more an aspiration than a reality, it is not difficult to understand its appeal even to the average of men and women. To the young it represents Excitement ; to the others it represents, or can be made to represent, Security ; nor need one be cynical in writing this. The same combination of generous sympathy for the wrongs of others and the desire to eradicate existing evils, together with the sense that one is participating in great events, which constitutes *Political Excitement*, and which once led the younger generation to support Radicalism or Free Trade or Fabian Socialism, now leads them to worship at the shrine of Planning. The same fears and the same hopes, the same evils and the same preoccupations which once made Socialists or Syndicalists of the working classes, now urge them to support the Planned Economy. And the events of the last two decades are sufficiently disconcerting to make the ideal of Security in itself overwhelmingly attractive—no more unemployment, no more competition, no more worry ! If only the Right Plan is found ! The wonder is not that these new currents of thought should have found supporters, but that they should not have found more.

We have to deal, then, with a movement of ideas which can draw support from two distinct (and perhaps very representative) types of temperament, which can appeal to generous and human and understandable urges and emotions, which, on the intellectual

side, can contrast the evils, the terrors and the uncertainties of the times with its own promise of greater control of human destiny and human happiness. Before one can deal with the intrinsic merits and demerits of planning, however, we must examine its relation to the two great systems of thought with which it is confronted : its relation to Capitalism and to Socialism.

III

The essence of Capitalism is that it embodies an order but does not conform to a Conscious Plan, in the sense that there is one unique and single determinable end to which the arrangements of the economic order are subordinated. Economic society under conditions of Capitalism is planless in this sense, but it does not follow that it is either irrational or chaotic—the two charges usually brought against it by supporters of a planned economy—nor that it prevents forethought, or the adjustment of specific means to specific ends. But it is true that the ends are constantly changing and that the means to any given end exist solely upon sufferance ; even if the end remains unchanged, the choice of means is determined upon the basis of relative efficiency, in other words upon the basis of *economy*.

Now that the capitalistic system is clearly being everywhere challenged, it is easier than it ever was before to see precisely what its strong points are, for it is these very features which cause it to be attacked and may in the end result in its overturn. The so-called "irrationality" of capitalism results from the freedom of choice which is permitted to the consumer, and the wants of the consumer alter from time to time, whilst it is at the same time a fundamental condition of production in anticipation of demand that investment must take place before demand has manifested itself. In this way some investment will prove to have been abortive ; on the other hand, some demands will not be satisfied to the full. If only consumers could be forced to take what was available ! How much less wasteful, how much less harassing for the totality of producers ! Again, under capitalistic conditions the satisfaction of the demand is left to the competitive efforts of producers, some of which are more efficient than others, whilst at the same time the technique by which given wants are satisfied is constantly altering under the spur of new invention and discovery. It is, of course, true that new inventions are largely (by no means universally) the work of

scientists who are not themselves business men, that business men merely "exploit" the discoveries of others and that there seems at first sight no reason why invention and discovery should not proceed with even greater rapidity under some other system of industrial organisation. Those who argue in this way and who actually make it a cause of complaint against capitalistic production that it does not use new inventions *quickly enough* are singularly obtuse. They overlook that it is just the chances of increased gain through the substitution of one process for another which cause new inventions to be taken up; and that it is the competition of product with product and of process with process which constitutes the economic chaos of which they complain. If it is true that under alternative systems of organising production the same rapidity of change in process and the same freedom of choice to the consumer will be present as under capitalism, it is certain that any such alternative system will exhibit the same characteristics of mistaken judgment occasionally causing a waste of resources and of alternative methods of production resulting in a conflict between producing authorities and organisations. Either there is freedom of choice, or regimentation of the consumer: freedom to make use of the most economical method, as judged from the standpoint of profit or loss, or there is authoritative regulation of the methods of production. Each of these alternatives excludes the other. To have both planning and freedom, regulation and perfect elasticity of organisation and technique is an impossibility.

The difficulty of reconciling capitalism and planning may be judged by the mistakes committed in the last ten years in consequence of the enthusiastic acceptance by certain classes of business men in all countries of the doctrine of Rationalisation. Rationalisation, in its essence, is nothing but the idea of a Planned Capitalism: and though little has been heard of it since the world depression began it is instructive to investigate the secret of its comparative failure. The essential fact of a market economy was discovered in the earliest days of the Industrial Revolution by Adam Smith: it is that the division of labour is limited by the extent of the market. The appropriate scale of production, and therefore the appropriate scale of organisation, is not a matter to be decided upon by considering merely the technical possibilities of the situation. In other words, what has caused so many rationalisation projects to fail, that is to disappoint from the financial point of view, has been the neglect of the distinction between

the *technical optimum* and the *economic optimum* : and the neglect of this distinction is peculiarly liable to occur when the direction of economic enterprise passes out of the hands of those trained to think in terms of the market into those trained to think in terms of the process subsidiary to the output of a certain product or service. No doubt, in certain cases, the market may grow up in course of time so as to absorb the output produced by the plant, which is technically at the optimum size : no doubt, also, in certain cases, the technical plant is not infinitely divisible, so that either a certain scale of output has to be provided for, or the product will not be produced at all. There are mitigating circumstances : the fact remains that the rationalised undertakings of the era 1922-29, with their enormous overhead investment, their centralisation of initiative and authority, their greater ability to monopolise the market and to buy on the most favourable terms, have not shown themselves conspicuously more successful than the non-rationalised undertakings. They have lacked *adaptability* and *elasticity* and, for my own part, I believe we shall witness a less blind worship of size and authority and monopoly in business for some time to come—unless, indeed, the whole process of economic adjustment of scale of output to demand is to be permanently prevented by the intervention of the State.

IV

Socialism involves, in the first instance, nothing except the collective ownership of the “ means of production, distribution and exchange.” It would be possible to imagine a collectivist society permitting absolutely free choice to the consumer and, as a consequence, submitting to the inevitable margin of wastage involved in producing in anticipation of demands which might not materialise. Moreover, such a society might also agree to the factors of production being distributed among the various enterprises, in accordance with the prices offered by those in charge of such undertakings. The only difference between our present arrangements and those which would obtain under the conditions imagined would be that profits would accrue to the undertaking, considered as a legal person, and not to the individual owners who, under existing arrangements, are the residuary beneficiaries. Under the state of affairs imagined, there would be competition among the State enterprises for the attraction of consumers’ demand and competition among them for the use of

the factors of production (including capital: so that the rate of interest would still be of importance as a guide). But, since such a state of affairs would clearly involve exactly those features of the existing order (other than the mere ownership of property) which are most frequently the object of collectivist attack, it is not probable that a Socialist Society would be content with the collectivisation of ownership: in practice Socialism involves planning, though it does not necessarily follow that all kinds of planning must necessarily result in socialisation of the "means of production, distribution and exchange." Apart from the sadistic desire to destroy the rich because they are rich, the desire, in other words, to enjoy what Alexander Bain called "the pleasures of malignity,"¹ what conceivable object could there be in a collective ownership of the instruments of production, etc., *unless* thereby the directive principles of society were altered? It is important to realise that I am *not* urging that the motives of Socialists are intrinsically bad, but only that Socialists would have no motives, other than intrinsically questionable ones, *unless* the scheme of society which they desired involved something above and beyond the mere collectivisation of the instruments of production, etc. That "something," whatever it is, the realisation of a greater measure of distributive equality, for instance, or the elimination of "chaos" or "waste" in the productive process, or the emancipation of the productive process from the "tyranny of the price system" or the substitution of "socially desirable" investment for "good security" as the ideal by which the banking system is to be guided, involves Planning. In this respect, no doubt, the neo-Marxians have gone beyond the teaching of the Prophet. Marx ends with the "expropriation of the expropriators," and, as is well-known, refused to write the "kitchen recipes" of the future. But, though the strength of Socialism as a political force may be owing more to dissatisfaction with the present than to the attractiveness of the future which it holds out, in practice it will be found that a merely negative attitude no longer contents the intellectuals of the labour movement. I am not concerned here with the practicability or desirability of the dreams and plans of the Webbs, G.D.H. Cole, Tawney, or Laski. What is common to all these writers is that they view economic

¹ It might have required some apology a few years ago to introduce such a concept into a serious discussion of the tendencies of the age. Let anyone who doubts the strength of such motives study the attacks on the Russian Kulak and the Russian middle-class and the present orgy in Germany against Jews and "Marxists."

society in the light of an ideal—they are, in other words, assuming that a Socialist Society must be a Planned Economy, not only planned as regards ownership rights, but in regard to the directions which the managers of production must observe. And thus, in the modern world, the popularity of Socialistic ideals helps on the propaganda in favour of Planning : and the enthusiasts of Planning aid the spread of Socialistic ideals. It is true, to repeat, that whilst Socialists necessarily are planners, not all planners are Socialists. But they unite in a common attack upon the existing system, the characteristic feature of which is that it is *not* subordinated to a plan but is based upon the principle of plurality of ends as expressed through the effective demand of consumers. That is the very reason why it is hated by all those who have chosen some one among many competing ideals as their guiding star for the construction of a New Commonwealth.

V

It is now in place to look somewhat more closely at Planning itself. To plan involves, as we have already said, the means to an end and the end itself. The ends which Planning is intended to further can be judged from more than one point of view : from the point of view of the means available for achieving them, from the point of view of the measure of agreement which they are likely to receive, and from the standpoint of the congruence of the ends aimed at with other ends also considered desirable. When Planning is looked at in this way it will in the end be found that the more comprehensive the end which Planning sets before itself as a conscious objective, the greater the degree of *incongruence* with other ends, the more difficult the determination of means and the less the degree of universal assent, which the plan in question is likely to receive.

(1) The simplest case is that in which the means are known, the end is a single one, and the end itself is generally approved of. Such cases are presented by the planning and construction of a factory, the laying down of a new line of transportation linking up a new centre of population with the existing transport facilities : the lay-out of a new town on predetermined lines. Each and all of these kinds of "planning" involve no great interference with property rights ; each one of them is congruent with a great mass of other ends, none of them are incapable of solution by known means even on the assumption of the existing capitalistic order.

(2) We can easily think, however, of another case in which the end is generally approved of, but where the means are in dispute and the congruence of the end with other ends is doubtful. I take the case of the "abolition of unemployment." Here is an end which in general is approved of: everyone desires to see voluntary leisure increased, no one desires to see involuntary leisure perpetuated. The difficulty is that no known system has been able to abolish unemployment—not even Communism—for it is now quite clear that in the last few years Russia has been passing through a "construction boom" analogous in every respect to that experienced in the capitalistic world and that with the gradual slackening of the intensity of that boom the phenomenon of unemployment is appearing. It is no doubt possible that if the supply price of all the factors of production were completely elastic unemployment would be much less than it is, but this involves a greater measure of willingness on the part of labour to submit to wage reductions than actually persists. On the other hand, even if a Communistic system were capable of completely eliminating unemployment, it by no means follows that to adopt it in order to relieve unemployment is congruent with other ends also generally approved of.

(3) It is, moreover, possible to think of cases where the means are known, the end is approved of, but where the congruence of the end aimed at with other ends is doubtful, and where general approval of the means is lacking: one has only to think of the agitation at present sweeping over the economic world in favour of a rise of prices. That it is possible to raise prices by inflation or reflation seems to me to be beyond question; whether it is desirable to raise prices in this way rather than through a restoration of confidence or through an adjustment of costs to prices is another matter. But the dispute as to means is not the same thing as a dispute about ends; so long as a great mass of fixed interest bearing indebtedness remains over as an inheritance from the period of prosperity before 1929 the world is faced by the alternative—either a rise of prices or default upon a hitherto unprecedented scale. That a rise of prices would resolve this dilemma cannot admit of doubt: that there is not unanimity on the point of whether monetary methods constitute the proper instruments of producing the desired result is, however, obvious.

(4) These difficulties of applying a "plan" reach their maximum where there is neither unanimity as regards the means, agreement

as to the ends nor congruity between the ends to be pursued and other ends. In other words, these difficulties of planning are at a maximum precisely in the case where the virtues of planning are most extolled by many in the case of Economic Society as a whole. There is no unanimity as to the methods to be pursued in this case : there is certainly no agreement as to what the end of a planned Society should be, and it will be made quite clear, in the course of subsequent discussion, that, if all the economic processes of society are to be controlled, certain other ends will necessarily have to be abandoned.

I do not think that it can be denied that the sentimental appeal which "Economic Planning" makes is in inverse ratio to the possibilities of its concrete realisation. No doubt there are enthusiasts for Town Planning, for Controlled Reflation, for the rationalisation of the Pig industry, for monopolistic re-organisation of London traffic conditions. But do such measures cut to the roots of our existing economic organisation ? Do they not, for the greater part, represent incursions into the capitalistic order, which, whether on balance desirable or undesirable, leave things much as they were ? Such schemes are not likely to enlist on their behalf the emotions necessary to provoke a real revolution in our present arrangements : on the other hand, the emotions which are enlisted on the side of Economic Planning are not likely to be satisfied with tinkering schemes of the kind mentioned above. It is the tragedy of Planning that it should never, short of a fundamental change in conditions, satisfy the army of the discontented to whom it appeals.

VI

From the standpoint of economic theory, a "planned economy" is not an "impossibility," but a tragedy : a tragedy in the sense that such an economy is utterly unable to fulfil the expectations of those who bring it about. It is, of course, possible to slaughter the middle-classes and to bring the most intolerable pressure to bear upon the Jews or any other section of society : it is, in other words, very easy to inflict pain and agony and distress upon classes and individuals, it is another matter to realise the *positive* end for which a "planned economy" is called into existence.

To begin with, a planned economy involves the rejection of *all alternatives save the one which is actually adopted*. A planned society which "plans for change" is, in fact, a contradiction in terms.

Either the plan is sound or it is unsound: either it admits of alteration, or it does not. If it does not allow for the improvements of technique, changes in demand, variations in the volume and composition of the population, it suffers some inherent weakness from the very beginning. If it does allow for such changes it is not a plan at all, but an aspiration. Who is capable of foreseeing the future and of judging at any given moment how far the best laid schemes will not require amendment? The more rapid the technical and scientific changes to which a society is subject, the less possible is it at any given moment to control its future.

It is, of course, possible to imagine a society in which economic change is definitely resisted. If the invention of new machinery or the exploitation of new sources of power were punishable with death, no doubt such inventions would cease to be made, or, at any rate, announced to the world. A forcible standardisation of existing methods for all time might be the aim of the authorities of such a society: but what, in that case, comes of the argument that it is only by deliberate planning for the future that the maximum advantage can be obtained from scientific invention and discovery? The fact is that a planned society is only possible on condition that one assumes static conditions of production, either because changes are not permitted or because changes do not take place on other grounds.

VII

Since a planned society necessarily involves the exclusion of all alternatives other than the one actually adopted, it follows also that a planned society is one based upon the principle of *force*: acts inconsistent with the furtherance of the plan which underlies the economic activities of the community *must* be restrained, and to restrain *is* to use force. It is, of course, quite true that capitalistic society also involves the use of force: a system of society based upon private rights of property cannot permit theft and fraud to take place without destroying its own basis of existence. But, since under conditions of free enterprise no specific end or determinate single end is set before the members of the community, the area within which the use of force is required is *ipso facto* diminished: and it is significant that it is in communities which, like Russia, have adopted the principle of planning that the death penalty should have to be invoked for a series of "crimes," some of which find no place under capitalistic conditions and others of which are there subject to much

less severe conditions. It is a *necessity* of a planned society so to increase both the number of crimes and the severity of their punishment: it is necessary to constrain the tendency to experimentation and variation to narrow limits, and the more the plan conflicts with the expression of the normal impulses of human beings, the greater the repressive force must be. It may be that the ruthless use of force, in one generation, will result in the eradication of those impulses deemed harmful altogether: there is no reason at all to suppose that the Russians, in the end, will not be able to destroy those among them who do not exhibit the mental characteristics appropriate to a state of affairs in which the desire to better one's own position is regarded as an outrage against the state. Whether such a society contains within itself the necessary forces to ensure economic progress is another matter altogether: time alone will be able to answer this question. Meanwhile there can be no doubt whatever upon one point: planning involves the use of force, not only to bring the plan into existence, but to sustain it against failure from without. Against its own internal weaknesses it cannot, of course, be sustained: all that the planning authority can do is to prevent the facts of failure from being discussed, and to prevent the replacement of the plan by more appropriate plans and devices without its own consent. The fact that planning involves force and repression, in other words, increases the chances that economic change will be slower, in the future, in proportion to the area of activity comprehended within the plan: if innovation is to be treated as a crime, the desire to experiment and to innovate must necessarily diminish. A plan is likely to succeed most easily if conditions are static, and the simplest way of securing that conditions shall be static is forcibly to *prevent* them from being anything else.

VIII

That a planned society is liable to rely to a greater and greater extent upon the use of force and compulsion follows from another set of considerations to which hitherto English economists have paid far too little attention. A planned society, as Professor Mises has abundantly shown, *deprives itself of all those guides to rational conduct upon which the progress of economic life, in the last two centuries, has depended.*¹ In so far as the planned society eliminates

¹ *Die Gemeinwirtschaft*, 2nd Ed., especially pp. 11-114.

the market and the price system it has to substitute other guiding principles, by means of which it can direct the use of the factors of production. A society, for instance, which is faced by the problem of how best to use a limited amount of the factor capital, and which refuses to use the rate of interest as a guide to what uses that capital shall be put, will find it very difficult to avoid wastage of such capital resources as are available. A society which refuses to allow relative prices to determine what shall be produced must either settle the matter by *fiat* or must run the risk of constantly producing the wrong things. The right distribution of resources is *not* a problem of technology or of "industrial engineering," and the wastage of capital resulting from maldistribution of resources cannot be disproved by pointing to the erection of new power stations, or the creation of new cities out of the "virgin plain." Though, no doubt, such things may impress the tourist to Russia, no one has ever thought of pointing to Miami or the other by-products of the Florida land boom as one of the triumphs of American capitalism. There are, in Russia as elsewhere, more and less urgent wants to be satisfied and only a limited volume of the factors of production are available to meet these wants. In the absence of a price system and a freely functioning interest rate, it is only possible to determine the urgency of such wants by authority. In a country in which labour is relatively cheap and capital dear it does not in the least appear *a priori* reasonable that the most urgent wants to be satisfied are the erection of power plants and the building of tractor factories: it may, rationally speaking, be better to extend the production of those things at which Russian *labour* has a relative advantage, and import those things, the capital content of which is high. However that may be, it is clear that if a society rejects the index afforded by the movement of market prices, whether for finished products or for the factors of production, and substitutes therefor some arbitrary standard, it is likely to go astray, and, once having entered upon a wrong path, will be led from one error to another, *i.e.*, in the effort to prevent its own mistakes from becoming apparent, it will be driven from one coercive act to another. The replacement of "pecuniary" by "non-pecuniary" standards is not, in other words, the simple thing that it seems to those who believe that ethical catchwords are a reliable substitute for rational thinking. The further removed the principle actually adopted is from the dictates of rational economic calculation, the greater the degree of force necessary to maintain the system in being.

IX

What is likely to be the outcome of the emotional and intellectual forces which are making for some kind of Planned Economic Society? The economists of the Liberal school and the adherents of freedom of enterprise should be under no delusions: it is not by showing the inherent dangers and absurdities of a thorough-going abandonment of rational economic thought that a movement of such vast scope can be stayed. Economic planning is not "impossible" in the sense that attempts to realise it cannot or will not be made: facts prove the contrary. Nor is it true that mistakes committed in the course of experimentation will necessarily prove fatal to such plans: in an age of intolerance the discovery of error is a *crime* and the setting up of rational standards by which to judge of the errors committed, is greatly impeded. Moreover, it is not necessarily true that the absolute standard of life will *fall*: all that is likely to happen is that economic progress will be less rapid than it would otherwise have been. The average man is not likely to be greatly impressed by negative arguments of this kind, even if the critics were given liberty of expression, which is not likely to be the case.

Of what use is it to permit of the *details* of a plan being questioned if the principle of the plan is to be held sacrosanct? The much advertised self-criticism of the Soviet economy is only the tribute paid by Intolerance to Appearances in so far as it does not extend to the *principle* of Communism. (And an opponent of Communism in principle is silenced by methods more efficacious than counter-argument.) I see no reason, then, why the world should not pass over into a new era of Absolutism and Intolerance: why the writings and teachings of the French and British humanists and utilitarians should not be burnt as dangerous documents by the public hangman and why the desire to improve one's position should not be treated as a crime to be punished as theft is to-day. The intellectuals who are now undermining confidence in the future of our present civilisation may, then, as the paid servants of a bureaucratic State, explain why Freedom is a curse and Liberty a crime. Let us hope that in due course the Age of Reason will return, and that Mankind will find that the pleasures of malignity are less satisfying in the end than those which free enterprise allowed us to enjoy.

T. E. GREGORY

THE CIRCULATION OF MONEY IN RELATION TO PRODUCTION AND EMPLOYMENT

THE aim of production is to yield a supply of final commodities and services to those that engage in it whether by their labour or by their investments. In an advanced economic community these final commodities and services do not accrue to the producers directly, but are bought with money which, unless it has been specifically created for that purpose, has come into their possession as money earnings for the part they have played in production. The complete process of production of commodities may, and usually does, involve many connected stages beginning with operations on natural resources, yielding primary products, and ending when the commodities have reached their final form and are in the possession of those who intend to consume them. Leaving investment aside for the moment, the part played by producers may consist of operations on, or connected with, the commodities as they pass through the various stages—changing their form, transporting them, or holding them for sale—or it may consist in producing aids to facilitate these operations—tools, machinery, plant, etc. Whichever it may be, it is evidently a part of the complete process of production. The one who makes a loom is not less engaged in the complete process of production of cloth than the one who weaves the cloth. It is simply that the former is engaged at an earlier stage in the complete process of production of cloth than the latter, and similarly there are earlier and later stages in the complete process of production of any commodity.

The result of this complete process of production is a flow of final commodities and services which, if the aim of production is to be satisfactorily achieved, must be matched by a flow of money sufficient to purchase the flow of final commodities and services and cover its money costs. Seeing that the money costs are the money earnings of those who, by their activities, are the producers of the flow of final commodities and services, that there is a possibility of such a flow of money is evident. Smooth and continuous working implies a continuous correspondence between the flow of final

commodities and services and the flow of money, and that the money shall be so distributed in expenditure upon the commodities and services as to correspond with the distribution of the money costs.

Here, however, it should be noticed that the money earnings of producers for their activities at a given moment cannot accrue directly from the money expenditure on final commodities and services at the same moment by those who intend to consume them. The present activities of any producer will find expression in final commodities and services only in a future which may range from the immediate to the distant. His money earnings for his present activities as a producer do not, therefore, accrue to him directly from spending—a term which it is suggested should be confined to the expenditure of money on final commodities and services by those who intend to consume them. They accrue directly from the money earnings of someone—which may be himself—for past activities in the process of production, which earnings their recipient might have withheld from circulation,¹ or spent on final commodities and services for his own consumption. Instead of the money earnings being thus withheld or spent, their recipient has invested them, which means that he has made them available for, and that they have become, further money earnings, he receiving in return something, or a claim on something, which to him is not a final commodity or service, but which he anticipates will become so, either in its present form, or in a different form, for someone who will spend his money earnings in order to obtain it for his own consumption. Between the investment of a retailer in finished cloth and the investment of a manufacturer in a loom there is no essential difference. The main difference is the different lengths of time normally required for the investments to yield their complete money returns to the investors. These returns must eventually come from the money earnings expended on finished cloth by those who intend to consume it, and similarly with all other investments whose result is to maintain or enlarge the flow of final commodities and services.

In the above paragraphs, it has been stated that the complete process of production usually involves many connected stages, of which loom-making and weaving were given as examples, also that smooth and continuous working implies a continuous correspondence between the flow of final commodities and services and the flow

¹ As, for example, by keeping the money in his pocket or placing it in a bank where it remains as an unused deposit. The money earnings of capital aids

of money available and utilised for the purchase of these commodities and services. From what has just been said of investment its relation to these two flows is quite clear. A continuity of the flow of final commodities and services depends upon a continuity of investment, and this investment, the money earnings, and the money costs associated with the flow of final commodities and services, are simply different aspects of the flow of money required for the purchase of the flow of final commodities and services. The flow of money may be regarded as a circular flow and, so long as it continues in correspondence with the flow of final commodities and services in the way indicated, the conditions of smooth and continuous working are evidently present. Nor does the consideration that all the producers in receipt of money earnings may not be engaged at the same stage of production, that some may be engaged in producing capital aids to production—looms as in the above example—necessitate any modification of this statement, provided that these producers are thus constantly engaged, and that the looms they produce are renewals of existing looms. Such renewals are necessary to the maintenance of the current flow of final commodities and services and there is no reason to suppose that they must alter the volume of this flow.

When we think of the production of new and additional looms, however, which, when they come into use, will enlarge the flow of final commodities and services there are certain complications. While these looms are being produced, it can hardly be said that they are contributing to the current flow of final commodities and services, for they have not yet come into use. Their contribution is to the future flow, rather than to the current flow, but it is from the current flow that the loom-makers, like the weavers, must receive their current real earnings. Even so, when it is recognised that the essence of investment is that someone refrains from spending his available money earnings on final commodities and services, and transfers it to others who can thus spend it, this someone receiving in return commodities or services which to him are not final, it becomes clear that the maintenance of the conditions of smooth and continuous working is still possible. If, in the supposed case, there is a fixed amount of money, and a fixed number of producers of which a given proportion is continuously engaged in producing new and additional looms, the main difference from renewals is that, as these looms come into use, enlarging the flow of final commodities and services, there must be a fall in the price

level of the flow. On the other hand, if the production of new and additional looms meant that at one time a larger proportion, and at another time a smaller proportion, of the number of producers would be engaged in this work there would tend to be changes in the volume and in the price level of the current flow of final commodities and services. Theoretically such changes may, perhaps, be ignored, but it should be recognised that, in practice, they may have the effect of disturbing the conditions of smooth and continuous working which, from the point of view of monetary circulation, and with reference to the current flow of final commodities and services, may be thus stated :

$$\text{Earnings} = \text{Spending} = \text{Investment} = \text{Costs.}^1$$

Very little consideration of this statement is required to show that the fact of its being confined to the current flow of final commodities and services does not detract from its value, for the future flow is brought in immediately it becomes significant. When a contribution is being made to the future flow of final commodities and services, as, for example, by the construction of a new and additional loom, whether it will eventually be a profitable contribution to the current flow of final commodities and services can only be known when the loom comes into use, and, when this stage is reached, the loom, in its monetary aspect, is contained in the equations. Also, another qualification of the statement of the conditions of smooth and continuous working which may be important in practice should be noticed. The flow of final commodities and services, to which the flow of money is related, comprehends a multitude of constituent flows, to each of which similar equations must apply if the conditions of smooth and continuous working of the system as a whole are to be assured. To suggest that this qualification is unnecessary as a fall of some prices would be offset by a rise of others, and that consequently the conditions of smooth and continuous working would, on the whole, be maintained, is to disregard the possible reactions of such a fall on total investment and thus on the total flow of money.

Finally, there is the question of the price level of the flow of final commodities and services. If the above equations continuously held good, with $E = \text{Earnings}$, $F = \text{Flow of final commodities and}$

¹It is perhaps unnecessary to mention that the investment contemplated here is the net continuous investment required to assure a continuous flow of final commodities and services under the conditions stated. If A, a tailor, sells a suit of clothes for £10, made of cloth which he has obtained from B at a cost of £5, the net investment of A and B together is not £15, as sometimes seems to have been assumed, but £10.

services ; then P (Price level of the flow of final commodities and services) $= \frac{E}{F}$ would continuously hold good. This formula, however, requires important extension. Under the conditions of smooth and continuous working the amount of money continuously available and utilised for spending on the flow of final commodities and services must be equal to the amount of money earnings of those to whose activities the production of the flow is due. But, as already mentioned, the whole amount of money earnings may not be thus spent by their actual recipients. Any portion can be completely withheld from circulation, and any portion can be at once re-invested and thus at once become the money earnings of contributors either to the current or to the future flow of final commodities and services. Consequently, while this re-investing is proceeding, it is possible for the total money earnings and the total money costs associated with the current flow of final commodities and services to exceed the amount of money available for the purchase of this flow. On the other hand, just as money earnings can be at once re-invested, so money earnings can be at once re-spent, the effect in this case being opposite to that of re-investing.

With these explanatory remarks the price level of the flow of final commodities and services, assuming a given amount of money available for circulation, may be again stated in terms of the following symbols. If E' = Total Earnings ; R = Re-spending ; I' = Re-investing ; W = Earnings completely withheld from circulation ; then P (Price level of the flow of final commodities and services) $= \frac{(E' + R) - (I' + W)}{F}$.

In order to see the relation of this formula to the $\frac{E}{F}$ formula it is requisite to bear in mind that, in the present formula, E' = Total Earnings : earnings which may include those on the future flow as well as those on the current flow of final commodities and services. In the other formula E = Earnings on the current flow alone under the conditions of smooth and continuous working. Thus E' = Total Earnings exceeds E = Earnings on the current flow by I' the amount of re-investing. Allowing for re-investing, with a maintenance of the conditions of smooth and continuous working as in the $\frac{E}{F}$ formula, we should have E' (= Total Earnings) less I' (= Re-investing) with

both R and $W=0$, a position which could be thus expressed :

$$\frac{E'-I'}{F} = \frac{E}{F}.$$

This position could obtain in practice if, as suggested before, a portion of the earnings on the current flow of final commodities and services were re-invested in the production of new and additional looms, which would contribute to the future flow of final commodities and services, rather than to the current flow, and if the loom-makers, with the money earnings which accrued to them through the re-investment, purchased that portion of the flow of final commodities and services which the re-investors might have purchased.

II

In the above section some indication has been given of the general relations between the flow of money and the production of the flow of final commodities and services. This production depends upon investment, for it is through investment that the flow of money becomes the money earnings of producers for their activities in contributing to the current and future flow of final commodities and services. Evidently the direction of investment will determine the direction of the employment of producers ; whether, and in what proportions, they shall be employed in this or that stage of the complete process of production ; whether, and in what proportions, they shall contribute to this or that of the multitude of constituent flows comprehended in the total flow of final commodities and services.

The presumption is that investment, and therefore employment, will be continuous in all directions in which investment continues, actually or in anticipation, sufficiently profitable. If, in any direction, investment becomes relatively unprofitable, investment, and therefore employment,¹ in this direction, may be expected to decline, and, if the position continues, eventually to cease altogether, the rapidity of the decline and the length of time before cessation, varying according to the circumstances of the case. Thinking of an undertaking which is contributing to the current flow of final commodities and services, rather than to the future flow, if the investment in current labour is relatively large, the decline may be very rapid, and, if the capital aids to production are of a

¹The measurement of employment, as the term is used here, would be in terms of a unit of labour receiving a unit of money earnings in a unit of time

short-lived variety, the period before cessation may be very short. If, on the other hand, the investment in current labour is relatively small, and the capital aids are long-lived, the decline may be very slow, and the period before cessation very long. An absolute decline of investment must proceed by non-renewals of previous investments, and it is to be noticed that where there has been a large investment now embodied in long-lived capital aids, even if the investment in the current labour working with these capital aids is unprofitable, the decline of investment in this labour may still be slow. If there is faith that the undertaking as a whole will again become profitable, the money required for investment in current labour may be forthcoming by way of mortgage loans on its tangible and intangible assets.¹ In an undertaking where the long-lived capital aids produce other long-lived capital aids, which undertaking consequently contributes to the future flow of final commodities and services, rather than to the current flow, very little consideration will show that the decline of investment in current labour is likely to be very rapid, and that the long-lived capital aids producing other capital aids will quickly fall into disuse.² The significant point is that, if there is a decline of investment in any direction, whatever the rapidity of the decline, there must be a decline of employment, the apparent remedy for which is either a renewal of investment in that direction or investment in some other direction.

The general cause of a decline of investment in any direction has already been suggested. It is that investment in that direction, actually or in anticipation, has become relatively unprofitable, which means that the amount of money which is accruing, or which it is anticipated will accrue, from the flow of money spent on final commodities and services is not sufficient to cover the money costs of the contribution which is being made to the flow of final commodities and services. These costs, however, constitute the money earnings of producers, including, if the investment is to continue, the earnings of investors. Investment declines when the actual or anticipated money earnings of investors disappear, or become too small to induce the full continuance of investment. If investment has declined there is, therefore, a possibility even with the amount

¹See last issue of *THE MANCHESTER SCHOOL*, pp. 77-80.

²This consideration may throw some light on the question why, at a time like the present, the production of the current flow of final commodities and services is relatively well maintained, while the production of long-lived capital aids which contribute to the future flow of final commodities and services is not

of money which is accruing, or which it is anticipated will accrue, from the flow of money spent on final commodities and services, that investment might be renewed if the money earnings were so re-adjusted as to restore the earnings of investors to the requisite amount. The direct method of re-adjustment would be, of course, by a reduction of the money earnings of producers other than investors. An indirect method would be by an increase in the flow of money, the money earnings of producers other than investors remaining as before. Successful application of either of these methods implies the willingness of other producers—which might not be present—to acquiesce in a reduction of their real earnings, while the second method further implies that, when the flow of money is increased, the requisite increased amount will be spent on the appropriate final commodities and services. The line of argument that the re-adjustment might be effected by greater efficiency in production, increasing the flow of final commodities and services, with a possible effect on the price level, is so clear as to require no other mention in this connection. Nor is it necessary to show that, although the above reasoning is applied to a decline of investment and employment in a particular direction, it is applicable, in its essentials, to a simultaneous decline of investment and employment in all directions.

But the question of a decline of investment and employment in a particular direction must be pressed somewhat further. That the amount of money which is accruing, or which it is anticipated will accrue, from the total spent on the flow of final commodities and services is not sufficient to cover the money costs in this direction, must mean that the amount of money being spent, or which it is anticipated will be spent, on one of the constituent flows of the total flow of final commodities and services is not sufficient to cover the money costs of this constituent flow. Whether this is to be taken to mean that the money costs of the flow are too large, or that the amount of money being spent, or which it is anticipated will be spent, is too small, is obviously a question which can be answered either way. For our purpose it is sufficient to observe that whether investment and employment in a particular direction decline, or cease altogether, it is such a difference between money costs and money spending which must be regarded as the ultimate cause of the decline or cessation. Moreover, it follows that, starting with a given flow of money, and assuming that the portion previously used for investment in the particular direction is not similarly used in

some other direction, the decline must mean that the money is either being completely withheld from circulation or re-spent as mentioned earlier. Consequently, unless the current labour whose money earnings accrued through this investment is absorbed in other directions by a process of readjustment to lower average money earnings, this current labour must be unemployed, with the appearance that, if the flow of money had not decreased, or if it were restored to its former amount, this unemployment would not exist. Apparently, however, in the conditions stated, the decrease in the flow of money is not the ultimate cause, rather it is an effect of this cause. The ultimate cause is a change in the relation between money costs and money spending, an actual change which may be seen by everybody, or a change as seen in anticipation by investors, including among the investors those whose activity lies within the banking system.

Nor is it difficult to realise how a decline of investment and employment in a particular direction, due to such changes, may induce a similar decline in other directions, extending until it becomes far greater and more widespread than is justified by rational considerations. When from a given flow of money a portion is withheld, this withholding must at least tend to further withholding with larger or smaller declines of investment and employment in all the stages of the complete process of production. When such is the position, an increase in the flow of money is both a symptom and a condition of recovery but, in itself, it is not a guarantee of genuine recovery. The essential requisite of genuine recovery is that the relation between money costs and money spending shall have become favourable to a revival of continuous investment. Even if the requisite were not present, and an increase in the flow of money could be induced, there would almost certainly be increased investment, and the increase might conceivably assist towards a rectification of the relation between money costs and money spending. If the rectification required were simply an alteration in the distribution of the flow of money, as earnings, so that investors generally would receive a larger proportion, the end might conceivably be attained if an increase in the flow of money could be induced. Similarly, if a general decline of investment and employment were consequent, not upon an actual change in the relation between money costs and money spending, but upon erroneous views of investors regarding the relation, if an increase in the flow of money could be induced, it might conceivably result in a permanent revival of investment and employment. If, however, the

change in the relation between money costs and money spending were consequent upon more fundamental causes resulting in a permanent decline in the amount of money spending relative to money costs, an induced increase in the flow of money, instead of assisting towards a rectification of the relation, would probably for a time disguise the need for this rectification, and, if persisted in, would tend to intensify the existing dislocation of the conditions of smooth and continuous working.

III

In view of the consideration that a decrease in the flow of money is likely to have a restrictive effect, and an increase an expansive effect, on investment and employment, it is not difficult to see the relevance of the consideration to an acute problem of unemployment, although the possibility should be recognised that, with perfect adaptability of all money earnings, money costs, and money prices, any limited decrease or increase in the flow of money would be of minor importance in its bearing on the problem. In practice, however, instead of this adaptability, there are varying degrees of rigidity, so that any change in the flow of money is likely to alter the pre-existing relation between the distribution of the flow, as earnings, and its distribution, as costs. Assuming some rigidity of the money earnings of current labour it is evident that, if there is a decrease in the flow of money, the employment of this labour cannot be maintained at its previous amount without impinging on other earnings.

It may be taken for granted that a decrease in the flow of money would have some reaction on the employment of current labour and, owing to reasons mentioned before, it is probable that the reaction would be greater in those undertakings producing capital aids which have not yet come into use, than in those where capital aids are largely used in producing the current flow of final commodities and services. As regards the reaction on money earnings, while the earnings of employed current labour might not be altogether unaffected, it seems probable that the earnings mainly affected would be those of investors, whereby the actions of potential investors might be influenced. Thus the proportion of the total money earnings invested might be smaller than when the flow of money was larger, the difference between the proportions being completely withheld from circulation, or re-spent on final commodities and

services, with the result that, in either case, the flow of money would be further reduced with maybe a further decline in investment and employment. As already suggested the immediate effects of withholding and re-spending would be somewhat different, for whereas withholding would at once reduce the amount spent on final commodities and services, re-spending would tend to maintain it, though, as this re-spending would be a spending of accumulated capital in its various forms, it must cease as this capital ceased to function. Apparently, one probable effect of such re-spending would be a reduction of the existing amount of capital aids to production. Without pursuing the matter further, it is clear, assuming some rigidity of the money earnings of current labour, how, with a decrease in the flow of money, there might be cumulative declines in investment and employment.

Is it, however, justifiable to suppose that, with an increase in the flow of money, the movement would be in the opposite direction, so that, if there was a problem of unemployment, the problem would be thus remedied? Again, assuming some rigidity of the money earnings of current labour, and assuming that an increase in the flow of money could be induced, that there would be a movement in the desired direction, and that unemployment would, to some extent, give place to employment seems beyond question. The difficulty is that of inducing the increase, for it cannot be assumed that, merely by increasing the available amount of money, and by lowering the terms on which it can be obtained, any large increase in the flow of money must be induced. An increase in this flow depends upon an increase of investment, and the available amount of money, and the terms on which it can be obtained, may be, at a particular time, comparatively unimportant conditions in inducing this increase. At all times the supremely important condition of an increase, and of a continuance of investment, is that investment shall be actually, or in anticipation, sufficiently profitable, which means ultimately the existence of an appropriate relation between money costs and money spending. If, under some such inducements as those suggested, there was an increase of investment, and money costs became money earnings, it does not follow that, in a system in which there is free disposal of these earnings, the appropriate relation between money costs and money spending would be attained, and, if events proved that the relation was not being attained, investment would again retract. On the other hand, if a continuous and constantly increasing amount of money were created

for spending, and the money were so used, it may be confidently stated that this would induce some increase in the flow of money. It would be the method of inflation which seeks to assure that, whatever money costs are, they shall always be exceeded by money spending, a method which, if relentlessly pursued, must, as experience has shown, ultimately dislocate the conditions of smooth and continuous working to the point of a dizzy collapse. At bottom, the case for maintaining the money payments from public funds to unemployed members of the community at a high level, and that against economy in public expenditure in general, rest upon the method of inflation, except that in these cases it is assumed that the effect will merely be to keep in circulation money which otherwise might be withheld from circulation.

The central feature of the situation in this country at the present time is that, in many directions, investment on its former scale is unprofitable, so that, to a large extent, it has become inoperative. In some of these directions the situation may be mainly due to the general dislocation of economic conditions and, if and when the dislocation is remedied, the situation may be so far retrieved that investment on something like the former scale may again operate. In other directions, however, it is apparent that the situation is not mainly due to the general dislocation, but to permanent changes in world demands and supplies, and here a return to the former situation and to the former scale of investment cannot be expected. Meanwhile, there are huge amounts of long-lived capital aids and of highly specialised labour unemployed. The only real remedy for this situation can be stated simply enough. It is the discovery of other directions in which investment will be profitable, a process which, in the nature of the case, is likely to be painfully slow.

It is the slowness of the process which gives point to the advocacy of the raising and utilising of a large-scale public loan in order to improve the present situation, and, in concluding this brief discussion, a word may be said on this question. In the first place, it will be noted that, so far in this discussion, investment has been taken to imply the free action of investors who invest money in the expectation that the investment will be profitable. Whether the investment does prove ultimately profitable evidently depends on whether the amount of money freely spent by purchasers on the final commodities and services resulting from the investment is sufficient to make it profitable. It is the sufficiency of this amount which, in a system whose basis is free enterprise, is the general criterion, of

appropriate investment, and it is when, in any direction, the amount is not sufficient that investment declines or ceases in that direction.

As already mentioned, investment in many directions at the present time is much smaller than it was formerly, presumably for the reason indicated, and this involves, as we have seen, assuming the deficiency has not been made up in other directions, a decrease in the flow of money with its probable consequences on employment. Seeing that a public loan would be guaranteed by the community, it may be taken for granted that there would be no difficulty in raising it, and, as it is not suggested that the loan should be at once handed out to be spent on final commodities and services, it could be regarded as a means of calling into investment and circulation money which, at present, is being withheld. Thus regarded, the loan would become a public investment which would be intended to result in a contribution, in some form or other, to the flow of final commodities and services. The contribution might, indeed, be of such a form that it would become the object of free money spending, in which case the above-mentioned criterion of profitability could be applied to the investment. If the contribution were not of this form, it would still be a contribution to the flow of final commodities and services, but one on which the members of the community would be obliged to dispose of their money earnings by the requisite payment of rates and taxes. If, however, the ratepayers and taxpayers were satisfied with the contribution, in the sense that there would be no ulterior reactions among them consequent upon the payments they were called upon to make, the contribution resulting from the investment would not essentially differ from that resulting from any other investment. That the investment would mean employment, and that connected with it there would be money costs, and money earnings, is quite clear. Moreover, to the extent to which, consequent upon this employment, there was a decrease in the amount of public funds required for the support of the unemployed, and to the extent to which the money earnings accruing from the employment were obliged to contribute to rates and taxes, the real money cost of the loan would be smaller than its apparent money cost.

But the main object of the loan is to improve the state of employment and its possible effects in this respect may be considered in the light of the previous discussion. Suppose the amount of the loan were, say, £*x* million, and that consequently there was an investment of this amount, and that it represented a net increase

of investment. Let us further suppose that the investment were entirely a home investment—that none of the money went abroad—and that the rate of money earnings of a unit of labour remained as before, the total money earnings being thus increased by £ x million.¹ Evidently, under the conditions stated, the direct effect of the investment on employment would be given in terms of the number of units of labour £ x million would employ during the time over which the investment was spread. But, clearly, this is not likely to be the only effect of the investment on employment. Any other effects, however, would depend upon what was done with the money earnings which accrued through the investment. The possibilities are that the money earnings might be completely withheld from circulation,² re-invested, or spent on final commodities and services. Only in the improbable event of the whole of the money earnings being at once completely withheld from circulation is it likely that the effect on employment would be limited to that directly consequent upon the investment. If the money earnings were at once re-invested, they would become a new investment, with the same effect upon employment, assuming the above-mentioned conditions still held, as the original investment—they would, in fact, continue the effect of that investment. If, on the other hand, the money earnings were spent on final commodities and services they would pass as money earnings into the hands of others who again might completely withhold them from circulation, re-invest them, or spend them on final commodities and services. Probably, at this stage, the earnings would to some extent be re-invested, with some effect, especially on the employment of the producers of the current flow of final commodities and services. It should be noticed, however, that, if the original investment were in labour which contributed to the current flow of final commodities and services, rather than to the future flow, the money earnings accruing from the original investment would mainly serve to provide the additional money required to purchase the addition made to the current flow of final commodities and services by the labour employed as a result of the original investment. If, on the other hand, the original investment were in labour which contributed to the future flow of final commodities and services, rather than to the current flow, or which produced, say, new roads or buildings, which would take a long time to complete, the spending of the money

¹ All these are, of course, extremely favourable suppositions which are unlikely to be realised in fact.

² For example, by their being used to repay bank advances or overdrafts not replaced by others, or by their becoming unused bank deposits.

earnings accruing from the original investment would probably have the effect, during the time over which the investment was spread, of calling into employment additional labour required to meet the increased demand for final commodities and services.

But what would be the position when the original investment was exhausted? This would evidently depend upon the reactions of the investment on the scale and continuity of future investment or, in other words, on the flow of money. If the reactions were such that the amount of money represented by the original investment became a permanent addition to the flow of money, and the conditions mentioned above still held, the permanent effect of the investment upon employment would be at least equal to that already suggested as its direct effect. It is, however, possible that the reactions would be more favourable. In the conditions created by the original investment, money which was being withheld from circulation might be drawn into it, and have a proportionate effect on employment. But, at all times, the determining condition would be whether investment, actually or in anticipation, was profitable. If, as previously stated, an unfavourable state of employment were due to a distorted outlook of investors regarding the profitability of investment, or even if it were due to the need for a general alteration in the distribution of the flow of money, as earnings, in favour of investors, the raising of a public loan which became a public investment might conceivably act as an impulse towards a rectification of the situation. If, however, the unfavourable state of employment were due to the existence of objective conditions involving a permanent dislocation of that relation between money costs and money spending which is the essential condition of continuous investment, while the raising of a public loan which became a public investment would almost certainly effect a temporary improvement in the state of employment, the ultimate effect might be to impede, rather than assist, a permanent improvement. Surveys of the industrial situation in this country at the present time suggest that, in many directions, sufficiently important seriously to involve the whole, there is such a dislocation of the relation between money costs and money spending that, in these directions, continuous investment, on its former scale, cannot possibly be restored by any rational monetary remedy. If such is the case there is only one adequate and sure remedy for the present state of employment, namely, the discovery of new and profitable lines of continuous investment.

G. W. DANIELS

THE PROBLEM OF VALUE

THE problem of value, if not still an unsettled problem of economics, is one which we are chary of affirming solved. And only upon the closest scrutiny is the importance of this difference of emphasis apparent. The difficulties that surround this source of economic theory, difficulties not entirely of an economic nature, make one happy to concentrate attention on more objective problems which allow scope for scientific methods. Indeed, the trend of modern economic discussion suggests a disposition to neglect this difficult analysis, content that economics does finally emerge a science concerned more with forces and less with feelings to add its quota of knowledge to practical matters. Values exist; streams of demand and supply converge in the market; prices are formed and fluctuate. Interest is evinced in the alterations taking place from time to time in the demands for and supplies of particular articles or services; prices, and the causes of their fluctuations are discussed and analysed; that values exist is taken as a sufficient starting point for more urgent and more practical considerations. It would, perhaps, be untrue definitely to state, though one may be allowed to suspect, that the economist is being driven to concentrate his attentions on the proximate and not what were considered the ultimate forces that drive economic enterprise.

It must be said that there is some excuse for this attitude. Though Smith, and Ricardo, and Mill may each have been wrong in his opinion, they were not sufficiently wrong to prevent their teaching of economics being a powerfully enlightening force. And so it probably is in the case of later generations of economists, who in this country find it not easy to mix the teachings of Ricardo and Jevons in proportions that are unanimously acceptable.

Yet, for those of us who are insufficiently impatient to reach the tumult of practice and who like to linger on the way, it is a pleasure to be confronted with the necessity of tracing again the progress we have casually accepted. The pleasure is greater, though the excitement is perhaps the less, in that we suspect a new guide, Professor Monroe,¹ takes us over a path running roughly parallel to

¹ *Value and Income* (Harvard University Press, 15s.).

the old. Three landmarks we missed. One, the theory of wages, because it was described so differently, and two others, cost of production and consumers' surplus, because they were said to have disappeared entirely.

The importance and the significance of cost of production has been a subject of contention throughout the history of modern economic theory. The theory of wages has for the best part of a century been a problem to be approached with care and abandoned with relief. The concept of consumers' surplus, despite the efforts of Professors Marshall, Nicholson, Edgeworth, Cannon, Macgregor, and Bowley, has remained a subject on which much can be said and little can be resolved. For these reasons it would be too much to hope that Professor Monroe had succeeded in establishing finality, but it is reasonable to enquire how much nearer finality is brought.

The problem of value can be attempted from two angles. It may be asked why anything has value or it may be asked what determines its value in relationship with other things of value, for example, money. All things are valuable that are good in the sense of being acceptable instruments by which we can achieve a desired end. But not all instruments are capable of bearing a particular value in relationship to that of some other instrument, or if they are capable, do not usually in conditions we experience bear such a relationship. Thus, musical appreciation may be desired that enjoyment may be obtained, but musical appreciation cannot be said to be worth so many bicycles, although both are instruments to desired ends. Similarly the moon may be an instrument by which a desired end, *e.g.*, distinction, could be obtained, but for all that the moon cannot be said to be worth a bundle of other things we can buy. The economist is not concerned with such values, but with values that are ponderable in terms of other values, not necessarily with values that are mensurable, but with values that are commensurable. It is clearly ridiculous to regard a thing as valuable without enquiring into the possibility of it being an instrument to satisfy some desire. Thus, because cleanliness is an end desired and soap is an instrument by which cleanliness may be attained, it does not necessarily follow that a cake of soap will be regarded as valuable by anyone. The cake of soap, for example, may exist where men do not, *e.g.*, on a derelict ship; or everyone may be naturally and permanently clean. Moreover there are degrees of cleanliness and a higher degree of cleanliness may be an undesirable end. Obviously, however,

in the language of economists, value is an attribute of a thing demanded. To any individual some ends are more desirable of attainment than others—the appeasement of hunger than the culture of the mind, and some instruments by which a given end may be attained are themselves of greater or less desirability as means, either because of their efficiency or as ends themselves. Thus, for warmth it is better to wear wool than paper, and to appease hunger it is more pleasurable to have steak than leather. Though if the ends to be attained are learning and the comfort of the feet the reverse is likely to be true. Thus we have a gradation of ends—urgent ends only partially attained, less urgent ends, and ends completely attained: we have gradations of means—means that are ends in themselves, such as dining; means that are of greater or less efficiency; means that are purely means, such as collar studs; means that as ends are to be avoided, such as surgery. These factors are influences on the relative values of means to each person in a society, for they are in fact the basis of the demand schedules we have for different means. In a society, therefore, which presents an aggregate of such schemes as the demand for different means, we have a sufficient explanation of the relative purchasing powers of different commodities for varying amounts of the different commodities that the society produces. To erect a scaffold of a theory of value, it only needs to be assumed that men wanting commodities *a*, *b*, *c*, and *d*, produce *a* rather than *b* if they find that more of *a*, *b*, *c*, and *d* are obtained by producing *a* rather than by producing *b*. That some men can only produce *b* alters merely the details of the design.

Let us consider broadly Marshall's attitude to this problem. The factors of production used in any enterprise can be employed in varying proportions, with varying efficiency, and with greater or less help from nature. One man using a saw, a hammer, and a chisel may make one chair a day; two men using the same tools may each make seven chairs in six days; ten men of which two are perpetually employed in making and repairing appropriate tools may together make 20 chairs a day. But no matter how skilfully one's labour force is proportioned between the production of consumption and instrumental goods, it may be that natural disadvantages will more than offset the tendency to increased production that technical efficiency promises to a community. Twenty men working on an acre of land, however skilfully their activities are directed, may fail to produce twice the output of ten men who have not equal access to

technical advantages. Thus a greater output may entail a greater or lesser proportionate use of the factors of production which a society can command.

The demands which factors of production make upon the income of the community are not functions of the technical efficiency with which they can be used in particular occupations. Thus, knowing how much of a , b , c , and d factors of production can produce with differing outputs of a , b , c and d , and knowing the proportions of $\Sigma abcd$ each requires in different circumstances, we know how much of $\Sigma abcd$ we shall have to offer to factors of production to induce them to produce different amounts of a , b , c , and d . If we know the proportion of $\Sigma abcd$ each one of us will give for additional amounts of a or b we shall know how much of that income bundle will have to be given by everybody to obtain a unit of a , or a unit of b .

Whichever way we attempt the problem we arrive at a point where we have sufficient knowledge to evaluate, logically if not numerically, our unknowns. We have, in other words, a survey of the forces acting upon the margin to determine the purchasing power relationships of different economic goods or to determine the social estimation of their relative differential values. It is clear that the two approaches to this solution are logically one, however different they may appear. It is a matter of little moment whether we concentrate attention on technical forces influencing supply in relation to the factors employed, and then show how the impingement of individual desires upon these streams of supply result in definite value relationships, or whether we take the view that individual desires call into being streams of goods in accordance with the relative urgencies of the needs for each stream, and make allowance afterwards for the technical difficulties of production. Essentially, it is a question of whether we look first on one side of the road or the other: we cannot alter the view on either side, much less the direction of the road. In the one case we may say that a unit of a is "worth" $r\Sigma abcd$, itself equal to the amount which we as a society will have to pay to factors to increase differentially the production of a : in the other case we may say the value of a unit of a is equal to $r\Sigma abcd$, itself equal to the amount of the income bundle we are willing to sacrifice to have our supplies of a increased differentially. Each statement can be equally true.

The first is tantamount to stating that the (money) value of a thing is equal to the (money) cost of producing a little more of it.

The second that the value of a thing is equal to that of those things we do without to obtain a little more of it, and is equal to its cost in this sense. The first statement is, however, still ambiguous if we delete the parenthetical reference. What is meant by the cost of producing a little more of a thing? The social cost underlying the production of any article of wealth is the using up of factors of production the making of that article necessitates. In one sense it is true that the reason why the use of resources must be regarded as a cost is that resources produce means that society regards as valuable. In this sense, therefore, the cost which is reflected in the use of a factor is typified in the necessity of choosing between the consumption of *a* and *b*.

The distinction between these two statements is of the point of view from which they are made, but the importance of the distinction is inherent in the divergent attitudes to which they give rise. The economic system is concerned with the production of values, and our estimates of relative values are in reality nothing more nor less than a rather crude method of determining the wants which are to be appeased out of a multitude of which some must remain unsatisfied. The valuable means we so determine we shall obtain are made available through the use of the factors of production that the community can command. If more resources are necessary to achieve a given end the social cost of achieving that end has in a very real sense increased. It is not the use of factors necessary to produce *a* relatively to those necessary to produce *b* that is the cost of *a*, and that is the consumption of *b* sacrificed by the community to obtain *a*, but the use of the resources necessary to produce *a*. It is immaterial whether we can ever obtain a measure of resources. A community may retain its income stream at a constant level with increasing difficulty: capital goods might, for some natural reason, experience a greatly accelerated rate of physical depreciation making necessary that a greater proportion of the community spend their time and energies in keeping constant the supply of equipment. The remainder would be under the necessity of working the equipment more continuously if the community were to retain an undiminished rate of consumption. In such a circumstance, it would be hard not to conclude that the costs of production to that community had increased. There is, however, one standpoint from which this conclusion can be denied its validity. It may be asserted that the "cost" of *a* is meaningless unless it be defined in relation to the "cost" of *b*, *i.e.*, that the cost of anything only exists as a relative

to another cost just as values are relative in their economic significance. With this definition it would be meaningless and unprofitable to compare the cost of a at one time with the cost of a (or b) at another, just as it is unsatisfactory to discuss the value relationship between a at one time and b at another.

There are, then, two meanings which we can attach to the term "cost": first, the number of factors necessary for a given act of production: secondly, the consumption sacrificed that a thing may be obtained. It remains to be discussed whether or not these costs play a *direct* part in the economic problem of value. The latter does not; it is merely a factor that must be judged before we give expression to a demand. Has the other cost concept a place in the theory of value?

Let us approach the problem from the point of view of society, to determine whether the former cost concept has any influence other than Professor Monroe suggests upon the valuation of a means, namely, that the greater the *proportion* of factors we have to use to produce a relatively to b the more we shall be content with a supply of a that is small relatively to that of b , and the greater will be the value of a in terms of b . The community will transfer factors of production from the production of a to the production of b if it esteems the differential b output more highly than the differential a output, *i.e.*, if the cost of doing without a things is less than the gain of having b things. This transference, however, will only so take place upon one condition, namely that the only cost to the consumers of b in terms of things sacrificed is the loss of the consumption of a things no longer produced. This condition may or may not be fulfilled. Factors may only accept transference provided that they are allowed to consume a greater income bundle of goods a and b and c . The consumption cost to the consumers, therefore, will be the things no longer produced *plus* the additional quantities of income that the community transfers to that section of the community producing b . But the cost (in terms of things sacrificed) is not so great as this to the community; yet it will be the consumption cost to the consumers of b and not the consumption cost to the whole of the community which will have its influence upon the equilibrium value relationship of a to b . Factors will continue to be transferred until the value of b things differentially produced by factors is equal to the value of the a things differentially produced by an equal number of factors *plus*

the additional consumption of factors after transference. Moreover, the additional consumption demanded by factors will be a function of the number of factors the community transfers, itself a function of its preference for another unit of b rather than of a and of the number of factors necessary to produce each unit of b .

It may be true that the general level of wages or the general standard of living, whatever that may mean, is not an influence on the supply of labour, but economic analysis is more concerned with the supply of factors for particular branches or processes of production, and these supplies can be altered by altered remunerations. We can conclude, therefore, that in so far as the community's altered estimations of the relative values of different means tend to result in something more than a mere re-distribution of factors, but actually in an extended supply of some and a contracted supply of others, both at different prices, the cost in terms of factors necessary for production is an influence in the theory of value.¹

Finally it is, perhaps, equally important that the term costs in economics, and its significance in everyday speech, is by usage taken to mean the outlay by entrepreneurs in the hiring of factors of production necessary to carry through a given process of production. If the supply prices of factors is an independent force operating in the valuation of wealth there seems to be little reason for departing from what has now become the normally accepted practice.²

¹For example, an increased demand for waiting is likely to convert some risk bearers into holders of fixed interest securities, even though it is allowed that the volume of the flow of savings is not a function of the rate of interest. The increase in the payment for "simple" waiting will, however, be a function of the transference of savings from risk bearing to non-risk bearing investment. On the other hand an increased demand for wireless cabinets entirely at the expense of piano cases might be unaccompanied by any alteration in the relative remunerations of wood workers in the two industries. In that case the value of wireless cabinets would be independent of the necessity of using more wood workers to bring about the increased output.

²This conclusion is antagonistic to that reached by Professor Monroe. "As noted earlier," he writes, "these sums (the expenditure of entrepreneurs) so long treated as *the* costs of production have no part in determining the static norms of values. . . . Expenses of production are at best a convenient device for demonstrating the influence of the objective factors" (*i.e.*, the ability of factors to produce more or less of a commodity). It is, of course, true to say that "what (an entrepreneur) has to pay out is entirely the result of what he is able to take in"—it is neither more nor less true to say the opposite in relation to the whole body of entrepreneurs. But what an entrepreneur pays to each factor will in the long period influence the volume of receipts necessary to preserve production at an equilibrium level. It is true that "values are consumer determined," and these values include wages, but who would say that a Trade Union cannot restrict the range within which consumers of labour are allowed to exercise this function?

Just as Professor Monroe views conditions of supply from a new angle, so too, in his hands, is the demand schedule given a new interpretation. If a man is willing to give ten dollars for a unit of a commodity and four dollars for a second, he is said to be willing to pay seven dollars each for the two units, and that will be the price at which he purchases two units. The "primary" demand schedule expresses the varying amounts of money that a person is willing to pay for different amounts of a commodity, so that if his money offers are represented by y and the quantities of the commodity for which he offers y are represented by x , the primary schedule is given by $y=f(x)$. The derived demand schedule, showing the number of units a man will take at different prices is then given by $y=f(x)/x$, instead of by $y=f'(x)$, as Marshall and Edgeworth give it. "According to this view of demand and price it is evident that we must modify the Marshallian doctrine of consumers' surplus."

This attitude is reinforced through what appears to be a misapprehension of the importance of alterations in the marginal utility of money to the consumer, which are implicit in the demand schedule of orthodox theory. Marshall admits¹ that if a man is willing to pay y shillings for a unit of a commodity during time t , but actually pays $(y-b)$ shillings per unit for two units, during time t , that his consumer's surplus is not represented with absolute accuracy by b shillings.² This qualification emerges because he would not be willing to pay y plus $(y-b)$, i.e., $2y-b$ shillings, for two units, or, in other words, he would not be willing to pay an extra b shillings over what he does pay for the utility the consumption of two units yields him. He will only pay this extra b shillings on the condition that his income is b shillings greater than in fact it is, that is on the condition that the marginal utility of money to him is less than it is. Whether this qualification is important enough to invalidate the use of the concept of consumers' surplus is a question of very much the same order as that debated in the last century.³

It is clear enough to understand what this admission does not infer. It does not suggest that the marginal utility of money to a consumer alters when he goes into a shop to make a purchase, but what it does suggest, if we may write of the subjective in such

¹ *Principles*, 8th Edition. pp. 334-6.

² We assume his demand to be in terms of "units" only.

³ *ECONOMIC JOURNAL*, Vol. IV., pp. 151, 342, 347.

concrete terms, is that the marginal utility of money will alter if a consumer is forced to purchase some utilities, which he previously obtained more cheaply, at the same rate as he is willing to pay for them at the margins of his lines of expenditure.¹ His willingness to pay $2y-b$ for two units is conditional not on his having a certain amount of his income unspent, but on the knowledge that he can buy each unit of each commodity at the price he pays for the additional units that complete his scheme of expenditure.

For these reasons it is difficult to agree with the following conclusions. First, that although the consumer pays $2(y-b)$ shillings for two units and is willing to pay y for one unit, he will not be *willing* to buy more than one unit at a price of $y-b$ shillings if his income is decreased by b shillings. Whether $y=f'(x)$ can or cannot be accepted as the demand schedule $y=f(x)/x$ appears an unsatisfactory substitute. Secondly, it cannot be said that one's demand price for two units is less than for one unit because some other commodity or service is more attractive than the addition of a second unit which was not more attractive than the addition of a first unit. The price I am willing to pay for seven apples a week is conditional on my knowing that I will have to pay less than I am willing to pay for clothes and housing. I do not value less the addition of a seventh apple to my weekly consumption of apples because I have to pay rent for a house, but rather do I put a lower price on all utilities than if I could live rent free.

The *existence* of consumer's surplus is not dependent upon an invariability of the marginal utility of money; it is the accuracy of measuring it in terms of money *from the data of the demand curve* that is affected. It is obvious that the expression of a demand of $2(y-b)$ shillings for two units cannot be consistent, *ceteris paribus*, with two incomes, one of which is virtually greater than the other. It is consistent for a man to offer $(y-b)$ shillings more to obtain another unit of a commodity for a unit of which he has already paid $(y-b)$ shillings. He is willing to pay $(y-b)$ shillings for another unit knowing the price of two units is twice that amount. If he knows that he will have to pay y plus $(y-b)$ for two units the marginal utility of money to him will alter. But the *relation* between the price he is willing to pay for one and that he is willing to pay for an additional unit will not thereby be altered. This relation would only be altered if (a) his taste for the commodity undergoes a change,

¹See Marshall, *Principles*, Appendix F.

or (b) his money income is divided into two compartments, with different marginal utilities. Thus, on assumption (b), if a man bought a unit for y shillings thinking that the marginal utility of money to him is the same as when he paid $(y-b)$ shillings for it, it might well be that when the time arrived to purchase the additional unit he would have discovered his error. Under these conditions the relation between the price the consumer is willing to pay for one unit and that he is willing to pay for an additional one is dependent upon the variations occurring in the marginal utility of money. This, however, appears too unusual to substantiate the following statement. "The increase in consumption costs (or marginal utility of money) is not due solely to the fact that something has already been allotted for the purchase of the first unit, but also to the fact that still more has been allotted for the purchase of other goods which stand higher in the buyer's want-scale than the second unit of the goods in question."¹

The treatment of the third problem—the theory of wages—is a variation on a residual theory of wages. Taking technical conditions as given, certain classes of labour limit in each line of production the volume of that production, because certain classes of labour are scarce. The wages of these labourers are determined by two forces, the demands of the community for different products and the wages which have to be paid to labourers co-operating with the scarce labourers in the production of the particular product. For example, three classes of labourers A, B, and C, co-operate together in the production of two commodities, B group co-operating with A and C groups. The distribution of factor B between the two different lines of production is determined by the value of the additional products that will result from transference from one line to another, transference ceasing when the value added to the production of A group equals that subtracted from the production of C group. That added value will give the wages of B labourers, and the remaining income will be divided between A and C groups. Another view can be taken. A group of B workers will take on members of A group to co-operate with them in production, paying them an amount equal to the value of the marginal net product of the A group employed. Similarly, another group of B workers will take on members of the C group paying each of them the value of the marginal net product of the C group employed. B workers will continually move between the BA and BC groups until the value

¹ *Value and Income*, p. 19.

of the marginal net products of the B workers are equal in the two lines of production. This view has at least the negative merit of refraining from calling one set of workers scarce when all workers receiving wages must of necessity be scarce. It has, too, the positive merit of observing the underlying reason for a payment of wages, namely, an addition to a value product. The fact that some workers set the limit to which production in any line can be carried does not prevent all services from being valued on this basis.

Despite Professor Monroe therefore, when next we have to travel the difficult road leading towards a solution of the problem of value, we shall still be aware of the old landmarks. As before, we shall make a profound obeisance to Marshall's costs of production, though we shall probably hope for a mist to prevent us knowing whether the shadow of real costs is still being cast. Again, we shall nod our acquaintance with consumers' surplus, doubtful whether or not to recognise it fully. And, seeing the problem of wages, we shall again pick up our heels murmuring the incantation of marginal productivity.

JACK STAFFORD

THE WHEAT ACT 1932

I

It is probably true that the difficulties which the work of economic analysis necessarily involves, are very greatly increased by the confusion of thought which persists in the popular mind. That which concerns the nature and import of what we style economic law is perhaps at once the most common and the most serious. Yet, even this confusion it would appear, arises from a failure to appreciate a distinction which is perfectly clear—that though the framework within which economic law operates may materially change, the change is a change of framework and not of the nature of the law itself. At a time when so much attention is focussed on the trend of economic events, this distinction assumes particular importance, since it involves also the need for discrimination between the purely economic influences helping to produce the results we see, and the influences which are of an entirely different character. It is this which explains one of the major difficulties confronting those whose work lies in realistic economics. The pure theorist may continue his work, for there is no dearth of problems awaiting his attention, not in the knowledge that his work is diminishing in value, but merely that the application of his results is becoming a much more complex matter. Since the theorist presumably feels compelled to spare some concern for current realistic problems, even he is by no means immune from the growing difficulties which lie there.

Of recent changes in framework, that which arises from state regulation commands immediate and careful attention. But since these changes in Great Britain have been brought about on a wholesale scale and at almost unprecedented speed, it is perhaps wisest to conduct a piecemeal examination in order to formulate any sound judgment of their significance. The changes introduced by the Wheat Act of 1932¹ naturally constitute a particular instance of a wide and general policy. The fact that the Act introduces certain novel features is an additional reason for its consideration apart.

¹22 and 23 Geo. 5. Ch. 24.

II

It will be relevant therefore to indicate the relation which this new measure bears to the general policy of which it is a part, to describe the additional machinery which it has been necessary to establish, and to indicate so far as may be, the new tendencies which will become operative, and the economic results to which they will lead. It will also be worth while to enquire, whether the desired objective could not be more easily reached by other means. In other words, we need to examine the quota as a method of regulation, in relation to the alternative which an import duty could provide. It is a conspicuous feature of the Wheat Act that, while its object is capable of the clearest understanding, its detailed provisions suffer almost complete incomprehensibility. The object is explained by the preamble. "An Act to secure to growers of home-grown millable wheat a standard price and a market therefor; to make provision for imposing on millers and importers of flour obligations to make payments calculated by reference to a quota of such wheat and as to the disposal of the moneys, thereby received; to provide for such millers being required to purchase unsold stocks of such wheat; and for purposes connected with the matters aforesaid." It is desired therefore to secure to domestic growers an enhanced price for their product, by distributing to them the proceeds of a levy to be made on flour¹ intended for domestic consumption from whatever source it comes. It is important here to emphasise the need for avoiding any consideration of the rightness of the policy itself—a pursuit which is not likely to be helpful. It may be possible to indicate whether a scheme of this kind will result in a net economic cost, or in a net saving, and that is all with which we are immediately concerned. The appropriate approach for the economist to such matters has been well stated by Professor Gregory.² "He may, it is true, analyse the presuppositions in each case, and show that the results contemplated are in dissonance with these assumptions, but he cannot directly attack the validity of political ideals, however little he may himself be in sympathy with them."

To the extent that the scheme aims at improving the competitive position of the domestic producer it involves no new departure. It

¹See Section 3 (i).

²*Tariffs; A Study in Method*. p. vii.

is already being done in some cases by the grant of a direct subsidy, in others and more generally by the levying of a protective duty against imports. It is the method of the quota which is new. The *modus operandi* of the wheat quota can be shortly described. The administrative problems are met by the creation of two new bodies—the Wheat Commission and the Flour Millers' Corporation. The former is responsible for giving effect to the provisions of the Act—so that it has been necessary to construct the machinery through which claims from wheat growers are received and accepted. On the other hand the Commission collects the quota payments which fall due from millers and from importers of flour. It is composed of seventeen persons, together with a chairman and vice-chairman. Of these, five members represent the interests of the growers of home-grown millable wheat, the flour millers and the dealers in home-grown wheat each have three representatives, the importers of flour one, and the consumers of flour five,¹ including one who represents the interests of the bakers of bread. The Flour Millers' Corporation is to serve, in the main, as the means of securing the disposal of any unsold stocks of home-grown wheat at the season end. It remains to explain the basis of the calculations according to which it is contrived that the income from the levies equates with the payment to growers of wheat. This is only possible by estimating in advance the supply of home-grown wheat of millable quality, the quantity of flour on which a levy will be payable, and the average price which home-grown wheat will realise in the open market. To adopt now the terminology of the Act—the “standard price” is the figure which the home-grower will receive in the aggregate if his sales are at the ascertained average price and if these estimates prove correct.² This standard price is fixed at ten shillings per hundredweight.³ It is significant that the figure is stipulated by the Act itself and remains invariable until 1935. Even then, any proposed variation must have Parliamentary approval before it becomes effective. Repeated but unavailing efforts were made to avoid this rigidity when the measure was before the House of Commons. The “ascertained average price” is the price which the home product realises in the open market. The exact figure is to be declared by

¹ Under the terms of the Bill as introduced to Parliament, the consumers of flour were to have two representatives only on the Wheat Commission.

² The grower in this case would receive the standard price less a small deduction for administration costs.

³ Section 2 (3).

the Minister of Agriculture at the end of the cereal year (July 31st), and payments to growers will be made on this basis, and not in relation to their actual selling price. Therefore the payments will be uniform per hundredweight irrespective of quality. The "deficiency payment" is determined by the "price deficit"—the difference between the ascertained average price and the standard price—subject to the cost of administration of the Act constituting a first charge against the moneys received from levies. There seems to have been considerable objection to the employment of the term deficiency payment. An amendment to the Bill was proposed, substituting the term "wheat subsidy."¹ This controversy assumes added importance when we realise that payments are to be made in respect of home-grown millable wheat—quite a different proposition from wheat which, in fact, is used for milling into flour. It was stated in the House that of the total domestic wheat supply only one per cent. is used for the making of bread. The income of the Wheat Fund is from a levy in respect of flour milled or imported. Consequently a great part of the wheat which will qualify for the deficiency payment will not be used for milling into flour. The "anticipated supply" of home-grown millable wheat calls for special attention. It is the official estimate of the domestic supply of millable wheat and may be revised any time up to the end of January. There is a statutory presumption that seven and a half per cent. of the total crop will be retained for seed, and this is to be excluded from the "anticipated supply" so that it is intended to make no payment in respect of it. It is further provided² that if the actual supply exceeds 27,000,000 cwts. the deficiency payments shall be reduced *pro rata*, the aggregate excess being correspondingly reflected in the payments to individual growers.³ But in this event, the obligation on the Flour Millers' Corporation to purchase surplus stocks still remains. Where the actual supply is below the figure of 27,000,000 cwts. and yet is in excess of the anticipated supply, the deficiency payments will be abated in similar fashion. It is the object of the Act to avoid creating too great an incentive to increase the acreage under wheat. The basis on which quota payments are to be payable is stipulated by Section 3 of the Act. This serves as a good example of complicated definition.⁴ Every miller and every

¹This amendment met with ready support from a member who made his plea "in the interest of verbal veracity and political purity."

²Section 2 (4) (a).

³In effect 27,000,000 cwts. is the statutory maximum anticipated supply.

⁴Section 3 (1).

importer of flour is bound to make a payment in respect of each hundredweight of his output of flour,

“Of an amount calculated and prescribed in accordance with the provisions of this section so as to represent, as nearly as may be, a sum equal to what would have been the price deficit in respect of the quota of home-grown millable wheat used in the production of that hundredweight, if the anticipated supply of such wheat for the cereal year in which that hundredweight was delivered had been used at a uniform rate per hundredweight of flour in the production of the estimated supply of flour for that year.”

The intention is that the quota payment shall be so fixed that the aggregate income of the Wheat Commission is just enough to meet the deficiency payments due to growers and costs of administration. In the face of so many variables this is no light task. Well might the Chairman of the Wheat Commission say in this connection “You will see then that members of the Commission must either be mathematicians or prophets.”

III

Before attempting an appraisal of the probable economic results of the scheme, it is worth while to examine one or two points which occasion some doubt. According to what criterion has the standard price been fixed at 45s. per quarter? Even if we assume that the deficiency payments for a year or so are such as to bring the average market price approximately up to that figure, can such a return remain appropriate through changing conditions, for nothing is surer than that we shall witness changes before the standard price can be raised. If anything can be said in its favour it is that here we have one of the most definite points of the Act, and perhaps the knowledge of fixity is to be preferred to a continuing doubt. But it only tells the grower that he will receive an addition to his market price—not the amount of the addition, but merely the basis of its computation. To the miller and importer of flour its message is more sinister, because he feels that a fall in the world price of wheat is more probable than a recovery, and if that be so the quota payment he makes must rise. The average price for home-grown wheat for the thirty years preceding the war was 30s. 4d., so that the standard price now fixed is approximately 50 per cent. higher. How nearly the new position of the grower will approximate to that of pre-war days depends on the extent to which his money costs have

changed. Another problem of price fixation will arise in the event of the Flour Millers' Corporation being called upon to purchase unsold stocks. This liability, it should be noted, is limited to $12\frac{1}{2}$ per cent. of the anticipated supply for the year. Should unsold stocks accumulate beyond this percentage, the method whereby the excess is to be disposed of is not immediately apparent. But it is to be hoped that this is a remote possibility. The price which the Flour Millers' Corporation must pay is to be defined by the Minister, for whose guidance the Act stipulates that it shall be "a price not exceeding the standard price, to be as nearly as may be, the price which would in the area to which the order relates, and at the date on which the order comes into force, be obtained by a willing seller from a willing buyer for home-grown millable wheat of fair average quality." This is a formula far too nebulous to be capable of application in fact; but apart from this difficulty, the idea would seem to rest on the mistaken assumption that if at a given time x units of a commodity realise in the open market a price of y s. per unit, then $(x+b)$ units would still realise the same price per unit even though demand is a constant factor. Part of the difficulty is met by a provision which varies the price payable according to the quality of the parcel in question.¹ This is to be done by the local wheat committees set up under the Act. And this price is to be fixed, not merely in relation to the average price stipulated by the Minister, but also "having regard to any fluctuations in the market prices of wheat which have, since the date of the order, occurred in the area aforesaid." May this not result in growers choosing, or at least, attempting to choose the most opportune moment to apply for the compulsory disposal of their surplus, since presumably the volume of such surplus in the aggregate is not to be allowed to affect the purchase price?

Next is the problem of differentiation between wheat which is millable and that which is not. In practice the judgment will be that of "authorised merchants" subject to appeal to the local wheat committee, a body with equal numerical representation of merchants, millers, and growers. It is important to ask whether there is any likelihood that the criterion used will fail to be a common one. To the lay mind, the definition of millable wheat given by the Minister does not go far to remove this doubt:

"Millable wheat shall be wheat which is in sweet and fair merchantable condition, commercially clean as regards admixture

¹ *The Wheat Byelaws*. Part III. para 55.

and tailings, and commercially free from heated or mouldy grains or objectionable taint, and capable of being manufactured into a sound and sweet flour fit for human consumption having regard to the customary methods employed in the milling industry for cleaning and conditioning wheat."¹

In the passing of the Bill through Parliament, there was a strong attempt made to secure a more exact statutory definition. Although without success, Sir Stafford Cripps moved a series of amendments intended to provide against qualification for deficiency payment where wheat failed to conform to a given standard in respect of dry gluten content, disease, or moisture. It was bad enough that farmers should get a subsidy on wheat, he said, but they did not want them to get a subsidy on water. As to wheat which may become millable through conditioning, the Act clings rigidly to the principle that deficiency payments are to be made only in respect of wheat actually sold and delivered, and which is of millable quality. Therefore, to earn the subsidy the farmer must arrange for conditioning *before* sale, and this involves special supervision of wheat removed from farms for this purpose. Should any parcel of home-grown millable wheat be transferred for milling or other use to some concern owned by the grower, then there is no valid claim to deficiency payment in respect of it. This leads to the problem which arises from the stipulation that "in prescribing the anticipated supply for any cereal year, the Minister shall assume that seven and a half per cent. of the home-grown millable wheat available in that year will be retained for seed, and not sold by registered growers."² This surely implies the expectation that wheat required for seed will be withheld from sale. But the Chairman of the Wheat Commission has stated³ that "if a farmer desires to repurchase for seed wheat he has sold, the wheat must first remain for three clear days in the merchant's warehouse or in a public warehouse." This is not easy to reconcile with the statement as to the duty of authorised merchants made by the Vice-Chairman of the Wheat Commission.⁴ "An authorised merchant is required to satisfy himself, before issuing a wheat certificate, that none of the wheat has been despatched for the purpose of being re-delivered to the person named in the certificate as the seller." It is conceivable of course that this may be intended to be construed

¹ *Wheat (Definition of Millable Wheat) Regulations 1932.*

² Section 2 (4) (b).

³ A Broadcast Speech, Oct. 26th, 1932. Issued as a Memorandum by the Wheat Commission.

⁴ N.F.U. Record, September 1932.

in such a way as still to permit the repurchase of wheat for seed, on the assumption presumably that either the grower repurchases wheat of another's growing, or of his own, but in this latter case, that his intent to repurchase is formulated subsequent to his being granted a wheat certificate in respect of it. But the supremely important point is that the anticipated supply is to be calculated to the exclusion of wheat used for seed, and since the deficiency payment turns on the relation of the actual supply to the anticipated supply, if wheat for seed is sold and then repurchased, the tendency is to depress the figure of the deficiency payment. But, from the point of view of the individual grower, he must choose between securing a claim to payment on x units in a given year at a rate of $ys.$ per unit, which depends on the action of other growers, or securing (by sale and repurchase of wheat for seed) a claim to payment in respect of $(x+a)$ units at a figure which he may or may not recognise as being likely to be lower, but which will certainly not be appreciably lower as a result of his individual action. It will always pay him to choose the latter alternative, even though it will always work out to the disadvantage of growers as a whole on account of the necessary cost involved in transport and margin on repurchase.

Something in the nature of an anomaly arises out of the provision for a repayment in respect of flour or bread exported or shipped as stores.¹ The rate of such repayment is determined by the *current* rate of quota payment. It means therefore that in order to achieve the main objective of the Act importers of flour are to be exposed to the risk of either windfall gain or loss, when the quota payment is varied, and this gain or loss will be great or small according to the degree of change in the quota payment, and the relation between stocks at the time of the change and subsequent exports from it.

IV

In order to assist in formulating a judgment of the scheme it is worth while to examine briefly such information as is available of the working of the Act. That so many details of great economic importance, are supplied, not by the Act itself, or even by the By-laws of the Wheat Commission, but by Statutory Rules and Orders is a point which makes it extremely difficult to obtain at any moment a true composite picture of the scheme. Changes which may be made by these instruments, while not departing from the general policy

¹Section 4 (1).

of the Act may easily lead to a change in economic results of the first order. The desirability of making use of such machinery is not here relevant, it raises issues which have other than economic implications. Yet it is important to realise how the effect of the Act may change, and in this particular case the directions in which change may occur through this agency are many. It has already been found necessary to vary the quota payment, from the original figure of 2s. 3d. per sack of 280 lbs. to 2s. 9d., but the circumstances are rather exceptional in that quota payments were levied from June 19th, 1932, and the amount may therefore have been stipulated on the basis of incomplete information. Deficiency payments apply only to wheat grown and sold with the cereal year beginning August 1st, and the purpose of this arrangement was to provide a fund to meet initial outgoings. The anticipated supply for the year 1932-33 has been provisionally fixed by the Minister at 19,800,000 cwts. (equivalent to 4,400,000 quarters).¹ The supply of flour which will be liable to quota payments is estimated at 90,000,000 cwts. The average price obtainable for wheat is estimated at 22s. 6d. per quarter, leaving a price deficit of the same amount per quarter. This less the costs of administration—about 3d. per quarter—represents the flat rate of payment which growers will receive if the estimates prove correct. It has been considered expedient to make payments on account to growers at intervals during the year rather than compel them to await a settlement after the close of the cereal year.

Two such advance payments have been made, at the rate of 13s. 6d. per quarter. These are in respect of certificates received and approved by the Wheat Commission up to February 28th, 1933, and cover sales by 79,000 growers of nearly 4,500,000 cwts. of wheat, involving a disbursement on this basis of £2,134,000. Clearly the amount of wheat actually sold during the period may be somewhat in excess of the above figure, since some growers apparently have delayed sending in to the Commission the certificates in their possession. The total number of growers registered by the Commission is 84,000. Up to February 3rd, the weighted average price of wheat in respect of which certificates had been accepted by the Commission stood at 5s. 4d. cwt., though the average of weekly prices at farm from December 1st to February 3rd was 5s. 2d. There remains therefore a margin in hand, compared with the estimate of the average price for the year, of 5s. per cwt.

¹ *The Wheat (Anticipated Supply) No. 1. Order 1932.*

V

It will be apparent from the formidable array of detail in which the Act is enshrouded that many considerations must influence any appraisal of the probable economic results of the scheme, or any comparison of this particular kind of quota with the instrument of an import duty operated for the same end. One or two points however, emerge with considerable clarity. There is general agreement as to the tendency to involve an increase in the price of bread. Differences of opinion turn mainly on the question of degree. The Chairman of the Wheat Commission pointed out¹ that 280 lbs. of flour will make about 376 pounds of bread. The present quota payment on this amount is 2s. 9d., or approximately $\frac{1}{4}$ d. per 2 lb. loaf. He went on to say "It is hard to see how, throughout the year, such a payment can make an appreciable difference to the price of the loaf. The consumers, therefore, will enjoy the pleasant sensation that they have been generous without danger to their own pockets." But surely if the consumer pays, he can hardly do so without "danger to his own pocket." If he does not it is rather mistaken to impute to him generosity. Here is a commodity for which the demand is relatively inelastic, so that the incidence of any tax levied on it, or on the material from which it is made, is likely to be on the consumer. That the amount of this present tax is small in relation to price per unit is less important than the fact that any scheme of this kind embodies all the defects of a regressive tax, and in addition its levying is rather elaborately disguised.

It is by no means conclusive that the intended advantages to the grower will remain with him, and to the extent that his increased earnings are offset by a rise in rent levels, the benefit will pass elsewhere.

The consequences which flow from the quota scheme will be dependent to a great extent on the future trend of the world price of wheat. The position is further complicated since, by virtue of the agreements made at the Ottawa Conference in August, 1932,² foreign wheat is now subject to a duty of 2s. per quarter, while that from

¹Broadcast speech, October 26th, 1932. Issued as a Memorandum by the Wheat Commission.

²*Vide: Imperial Economic Conference at Ottawa 1932.* Cmd. 4174. H.M. Stationery Office publication.

Empire sources is admitted free.¹ In view of the great export surplus of the Dominions, this arrangement seems likely to tend to depress the world price to the extent that the force of free competition remains unfettered. If, apart from this, world price shows a downward movement, it will necessitate an increased quota payment, and the relative position of home growers will be correspondingly enhanced. The more suitable criterion therefore would be, the changed position of consumer and grower *vis à vis* an absence of regulation, and not by comparison with their position at the moment when the quota scheme became operative. An upward movement of world price within the limit set by the standard price, would yield to the grower the same aggregate money return, a less proportion now coming from his deficiency payment, and the advantage of a secure market still remaining. For the present the prospect of a further price recession seems the more likely, even taking account of the fact that stocks are reported to be low, and that in France and Germany there is a move to reconstruct them for carrying forward to next season. The aggregate position is shown by the estimate that world supplies will be in the region of 35,000,000 quarters in excess of likely purchases of importers.²

Another consequence of the quota scheme will be a tendency for the acreage under wheat to increase. To a certain extent this will be an alternative rather than an additional use of land and labour. Its repercussions on other branches of agricultural activity will be many but are not capable of even provisional estimate, since further regulation schemes are to follow and will show only a net and not a separate result. On the second reading of the Wheat Bill the Minister

¹An anomalous position regarding Canadian wheat intended for Great Britain is commented on by the CORN TRADE NEWS of November 8th, 1932 as follows: "The opinion is generally held by merchants, that any Canadian wheat shipped through a United States port will be liable to the duty of 2s. per quarter on arrival in this country, and this regulation cannot fail to hinder Canadian trade with United Kingdom buyers when Montreal is closed at the end of this month. The ports of St. John and Halifax have been improved, but they cannot handle big quantities and the railway haul is not economical—the biggest quantity of wheat shipped by St. John and Halifax in one season was 16,000,000 bushels, and such a quantity gives but a small weekly average when spread over five months. The port of Vancouver will doubtless be shipping steadily throughout the winter, and it is able to deal with large quantities—we have had shipments of 500,000 quarters in one week from Vancouver—and United States ports will be available for shipments destined for the Continent; but it is the reverse of comforting to think that Antwerp and Rotterdam may get Canadian supplies by a cheaper route than the one available for United Kingdom ports."

²CORN TRADE NEWS. Nov. 8th, 1932.

of Agriculture stated that six million quarters (the statutory maximum supply on which quota payments will be calculated) represent, after allowance for seed and wastage 85 per cent. of the average wheat crop on nearly 1,800,000 acres. In 1931 the acreage under wheat in the United Kingdom was one and a quarter million, and the final figure for 1932 is 1,332,500 acres. A trade journal states¹ that "judging from the reports of acreage extension in eastern and southern counties, we fully anticipate that sowings of winter wheat this year will show an increase of at least 200-300,000 acres. Many farmers have sacrificed a part of their oats and barley land and replaced with wheat, owing to the incentive of the guaranteed price." So that as the domestic supply approaches the limit of 27,000,000 cwts. fixed by the Act, the aggregate deficiency payments, and, therefore, the levy per sack of flour will increase, apart from changes arising through price fluctuations. The net effect of an output of domestic wheat at this maximum figure would be to impose a burden on the consumer equivalent to the aggregate levy necessary, to pay over to growers a like amount, and to provide a somewhat higher level of employment in wheat growing than would otherwise be the case. But it shows no promise of constituting a redistribution—however questionable—of a national dividend which it will be instrumental in augmenting, but a redistribution of one it will almost certainly serve to diminish. Had the enterprise in question been one where we might have hoped to establish by such artificial aid a strong competitive position in world markets, then the matter would have been one of a wholly different complexion.

VI

On the Committee stage of the Bill, the position was stated rather cryptically and perhaps a trifle dogmatically by Major Lloyd George who said he understood that the Minister of Agriculture hoped to place another 400,000 acres under wheat. Out of the £6,000,000 subsidy, they could buy all the wheat which would be grown on that land and give it away free; they could also give each of the additional 13,000 men who would be employed £100 a year and still have over £2,000,000 left. With criticism of this kind we are only partly concerned—to the extent of enquiring what results would be likely to follow from the alternative of a duty on imported wheat and flour. It is not possible to pursue this enquiry to any

¹ *Ibid.*

very definite conclusion since so much would depend on the type of duty chosen, and on many other points. But it is important to emphasise that a duty could be constructed which would serve the same purpose, and perhaps avoid many points of a quota scheme which are often regarded as defects. It used to be said that the quota as an instrument was at a disadvantage since its administration cost represented a net charge to the exchequer. In the Wheat Act, this has, of course, been obviated. The alternative between a duty and a quota has been examined by Mr. J. R. Hicks,¹ but not only is he almost entirely concerned to condemn regulation of any kind, but he takes no account of the possibility that the yield from an import duty could be earmarked for distribution to home growers of wheat to augment the benefit from the price rise which the duty would presumably bring. That such an arrangement is unusual or novel does not warrant its exclusion from consideration. If a duty of this type were chosen there is little doubt that it could be made to produce the desired results. Its main advantage would be that it would employ a type of machinery with which we are more familiar, and the economic implications would be somewhat more clear. It would bring into sharp relief the difference between guaranteeing to domestic growers a specific price return for their product, come what may, and guaranteeing that their position should consistently be a relatively enhanced one.² Were it desired to secure to the home-grower a fixed price for his product over a period—say till 1935—then the construction of a duty to achieve this involves some difficulty. Any fall in world price would result in the need for an increased income from the duty, and even on the assumption that demand is highly inelastic, a simple specific duty would not secure this, unless its level on inception was more than adequate to bridge the gap between market and guaranteed price. Any rise in world price would correspondingly call for a diminishing rate of duty per unit. If the domestic output increased as a proportion of total consumption, as presumably it would, then there would be a need for a greater aggregate disbursement, and therefore a higher rate of duty. But may it not be true that a duty would be likely to fall in part on the quasi-rents of suppliers abroad, whereas the levies under a quota system are passed on to the shoulders of

¹ *Tariffs ; The Case Examined*. Sir Wm. Beveridge and others.

² A simple specific duty could be relied upon to do this. If unaltered it would act as an automatic check to an increase in domestic output.

the consumer?¹ This is not to say that a duty would be therefore preferable—but if such were true—then the economic cost to the community would be less.

VII

The main conclusions to which this examination of the Wheat Act leads are simple and clear, especially in view of the bewildering maze through which we have been led. There should be no doubt that it will succeed in its object; it will benefit the home-grower of wheat at the expense of the consumer. But it will set up many repercussions not yet discernible, and these will vary as details of the scheme are changed, and the unobtrusive fashion in which such changes can be made warrant the closest attention to them. At the time the bill was introduced it was commented that "it would be a grave mistake to let the Wheat Quota Bill go through unchallenged because it is 'only a little bill.' Little ones grow up."² Challenge is needed not necessarily that its successors should be defeated, but that they should be understood. The Chairman of the Wheat Commission has said "The Act is in the nature of an experiment. When the time comes to review its operations, public opinion will be greatly influenced by the knowledge that all sections of the industry engaged in the growing or marketing of wheat have worked together so loyally for the benefit of agriculture."³ It is to be hoped that other considerations too will be reflected in public opinion.

S. G. ROBERTS.

¹This would probably be the case since a duty would alter the relative competitive positions of home and foreign growers, and therefore provide an incentive for suppliers abroad to cut their price in order to maintain their share of the market. Under a quota, the levies do not enter into foreign suppliers quotations at all, and are payable alike on the home and imported product, so leaving the relative competitive position unchanged.

²Editorial. THE MANCHESTER GUARDIAN, February 25th, 1932.

³Broadcast speech. October 26th, 1932. Wheat Commission Memorandum.

REVIEWS

Retailing and the Public. By LAWRENCE E. NEAL. (Allen & Unwin. 7s. 6d.)

THE problem of retail distribution has received little attention from the professional economist in this country. This book, by a retailer, is therefore all the more welcome, because, not only does it give a survey of the whole field of retailing, but also does attempt an objective analysis of the problems involved and indicates the probable trend which retailing will take.

After a preliminary chapter giving a rapid account of the development of modern retail distribution, Mr. Neal briefly summarises the main features of the various forms of retail distribution, from the small independent shop to the giant department store, and to the multiple organisations. It is interesting to note that he considers that there is still considerable scope for the "speciality shop," the shop which "relies for its prosperity on its successful interpretation of fashions, on a careful selection of the merchandise itself, and particularly on the personal and intimate connection between proprietor and clientèle." On the other hand he sees a future of diminishing importance for the mail order form of trading, in the distributive system, although it is to be noted that in the North of England the combination of mail order with club trading has appeared to have made considerable progress in recent years.

The chapters on budgetary control of merchandise and of expenses will be of considerable interest to the retailer. They suffer, however, from the absence of definite comparable statistics on rates of stock turn, gross margins of profit, and expenses, which would certainly have been included in any American book of the same type. Such figures as Mr. Neal gives are the rather vague figures which have come to be accepted amongst retailers, without their probing deeper into the sources of such figures, and into the variations which may exist on account of differences of size and type of business. It is unfortunate that Mr. Neal was not able to give some of the statistics

relating to the London stores, which were no doubt available to him as chairman of the group of young retailers all responsibly engaged in retailing and of whose discussions this book is the product.

The economist will be mainly interested in the second part of the book which deals with some of the criticisms which have been levelled against modern retailing, such as the disparity between retail and wholesale prices and the suggestion that wastes in distribution are on the increase. Valuable and suggestive as this chapter is, it only brings out more clearly the almost complete lack of statistics, which would help to clear up the many problems of retailing. Amongst others who have made a study of retailing, Mr. Neal is very much concerned about what he considers to be the number of redundant shops. In this connection it is interesting to note that the Manchester Corporation in its plans for the development of Wythenshawe intend to regulate the number and location of shops in accordance with careful estimates and enquiry into the needs of the population. In Italy and Germany there are laws regulating the number of shops which may be set up.

It is perhaps ungrateful to complain that some of the minor immediate problems, such as the maintenance of the prices of proprietary articles and coupon trading are not dealt with, after the critical and constructive manner in which Mr. Neal has treated the major problems of retail distribution.

L.C.

Railway Economics. By K. G. FENELON. (Methuen. 5s.)

The Railway Problem. By ASHLEY BROWN, with a Foreword by the RT. HON. SIR ARTHUR GRIFFITH-BOSCAWEN. (Simpkin Marshall. 3s. 6d.)

It would be difficult to find two up-to-date books on Railway economics so different in their approach to the subject as these. Dr. Fenelon in his *Railway Economics* has written a comprehensive, mainly descriptive book, which, although intended primarily for students, will undoubtedly find a much larger public. Dr. Fenelon has concerned himself for the most part with British railways, but he has succeeded admirably in putting their problems against a much wider background of general economic principles. The

problems discussed are essentially topical. Electrification, nationalisation, privately-owned wagons, larger wagons, road competition and the rival theories of departmental versus divisional organisation are all covered. A considerable amount of useful statistical information is given and the book is adequately indexed, while an excellent bibliography of rail transport is appended. It is impossible, however, to avoid a certain feeling of disappointment that Dr. Fenelon has confined his last chapter on "The Present Position and Future Prospects of British Railways" to three pages. The extremely wide range of his knowledge on all branches of transport would make his readers welcome a great deal more expert criticism of present tendencies, and such criticism would have been very much in place in a book dealing so largely with the actual problems facing the railway managements at the present time. The reader is left with something of the feeling of having been given a difficult riddle to solve, and then, after his interest has been thoroughly aroused, having the answer withheld from him. Nevertheless Dr. Fenelon has performed a very valuable service in writing a book on really modern railway economics, in bringing together such a large amount of relevant information and in presenting it in such a readable form to the public.

Unfortunately the danger with a topical book is that it so rapidly becomes out-of-date. Dr. Fenelon's chapter on road transport services, for instance, may require considerable modification in the near future when the Road and Rail Traffic Bill, introduced by the Minister of Transport, finds its place on the Statute Book. When Dr. Fenelon comes to revise this chapter for a second edition, there are two small inaccuracies which might with advantage be corrected. On page 192 he says that "the total revenue raised from motor vehicle duties and the petrol tax amount (1932) to about £50,000,000, leaving a balance of £11,000,000 (to meet the cost of the roads of £61,000,000), to be found from other sources." Actually the motor vehicle duties yielded £27,657,801 for the twelve months ended November 30th, 1932; driving licences, etc., brought in a further £738,924, while the yield of the petrol duty for 1932 was £35,224,000, of which £34,000,000 may be considered applicable to motor transport. This gives a total yield of motor taxation of £62,400,000, against a cost of the roads of considerably less than £61,000,000, on account of the Government's drastic economies. On page 194 again, the railways "were content to obtain a financial interest in established motor-bus concerns, generally

to the extent of 50 per cent. of the capital. Now practically every motor-bus company and several municipalities are combined in this way with the railway companies in providing transport services." The railway holding in motor-bus companies is in fact in almost every case very much less than 50 per cent., while, out of 47,000 omnibuses and motor-coaches licensed, the railways only have an interest in 13,000.

Mr. Ashley Brown's *The Railway Problem* is a book of a very different type. Mr. Ashley Brown is the General Secretary of the Railway Reform League and the sub-title on the cover of his book, "Can the Railways be Saved for the Stockholder?", frankly shows the angle from which he approaches the problem. Without ever going much below the surface, Mr. Ashley Brown deals, in a way perhaps a little too reminiscent of newspaper leading articles, with the composition of the Railway Boards, the problem of road competition, the complexities of the present schedules of rates and fares, the slow speed of many modern trains, the small size and private-ownership of wagons, canal competition, and the problems of electrification and oil-electric trains. The style is breezy and the book eminently readable. The author's personal prejudices on the subject of road transport and the relative merits of the Great Western Railway and de-merits of the Southern Railway are interesting, but out of place in a work on railway economics. His solutions for many of the problems, such as "the far closer association of the railways with industry" are very vague, and one is left with the feeling that he has failed to notice the great post-war industrial and population trends and the permanent effect these are bound to have on the position of the railways in the national economy. It may be true, as Dr. Fenelon says, that the railways made England "the workshop of the world," but, as the world cannot or will not buy her wares, England has been thrown since the war more and more on her own resources, with the result that the old staple export industries dependent on the railways have failed to hold their own, and there has been a great transfer of workers to light industries and distributive activities, coupled with a much wider dispersion of the population over suburban areas. We seem to be again becoming "a nation of shop-keepers," as we were before the Railway Age. This change is bound to increase the demand for road transport. The railway problem cannot be solved by resisting the whole trend of modern economic conditions, however intelligent and alert the resistance may be.

C.T.B.

The End of Reparations. By HJALMAR SCHACHT. (Jonathan Cape. 7s. 6d.)

THE re-appointment of Dr. Schacht to the Presidency of the Reichsbank lends new interest to these pronouncements upon what remains still a major world problem. In view of what is taking place in Germany, of the obvious dissatisfaction of Dr. Schacht with Germany's pre-crisis governments, and of his replacement of Dr. Luther, the opinions expressed in this work appear extremely significant, and do something to help one to understand the march of events which have led to the situation of the spring of 1933.

It is not so much the accuracy of the picture that Dr. Schacht presents that is important, that might in places be called into question, but rather his attitude both towards the Allies demanding and the Germany paying reparation that deserves attention. It is hardly too much to say that the widespread holding in Germany of views such as these would imbue the title of this work with a considerable degree of prophetic significance. And these no doubt are now views of moderation.

If there are still people in this country who regard the German attitude on the reparation question as untenable, Dr. Schacht should be found a persuasive advocate. And the probably still smaller body who regard reparation payment as still a political possibility, in default of Allied and Associated agreement, will do well to read the mingled political and economic case that is here presented.

J.S.

The Common Sense of Political Economy. By P. H. WICKSTEED. Edited by L. ROBBINS. (Routledge. Two volumes, 12s. 6d. each.)

It is to be expected that this new edition, for which our thanks are due to Professor Robbins, will do something to earn for Wicksteed's *Common Sense* the place in English economics that is its due. But even the felicitous results of the combined efforts of the editor and publisher can hardly overcome, what from this point of view, are the defects which are another aspect of the outstanding merits of this work. As Professor Robbins so justly observes in his introduction, no title could have been more misleading. For despite Wicksteed's insistence that the delimitation of the subject matter of economic results from an economic approach to the problem of life, and despite his illumination of this thesis by illustrations of domestic economic problems, the *Common Sense* is

an extremely abstract work full of analytical subtleties. This feature, together with the extremely exhaustive treatment of the nature of demand or choice or preference, constitutes one of its outstanding merits. Concerned with the relation between the satisfaction yielded by additional increments and the pattern of the economic nexus, Wicksteed is not satisfied until he has probed into every recognisable problem that is a result of the necessity of economic choice. Professor Robbins sees in this a very obvious value: he even makes the generalisation that "a failure to sit through the *Common Sense* is a pretty sure sign of intellectual smallness." Maybe this is so; but there is an unfortunate possibility that intellectual smallness may not be sufficiently uncommon to ensure in the future the general recognition which this work has failed to attract in the past.

To us, the great merit of Wicksteed's work is not this exhaustiveness, which in the realms of utility appears occasionally a dubiously valuable form of intellectual exercise; nor his insistence upon the importance of demand and the derivative nature of supply—after all, this is largely a question of the way in which we use the tools of marginal analysis; nor his mathematical tilt against the rent of land—other mathematicians must also have been aware of the relation between a rectangle of remuneration and its surplus; though his views on all these subjects are stimulating. It is rather that the book more than any other English work impresses upon one the unity of the subject matter of economics. To Wicksteed, economics consisted of one theme, and the different problems which have to be solved are variations upon this major theme of which one never loses sight. Economists who have cast their *Principles* or *Outlines* in the classical mould quite fail to make the same impression. As Wicksteed himself infers in his chapter on rent, it is difficult to rid oneself of the impression that economics is concerned with a variety of problems—not indeed disconnected, but still not clearly inter-related. It is possible to study economics from English text-books of the classical school without being vividly aware of the unity of all economic problems. No doubt their authors were as aware as Wicksteed of this, but any clue to such a state of mind is dropped as it were by accident, rather than by design to lead the reader to a fullness of understanding.

For this reason, the title of the *Common Sense* seems perhaps not so inappropriate; for it surely is common sense to present to the

student at the outset of his study an understanding that will simplify the solution of all economic problems. The same understanding is, of course, to be obtained from Marshall, but it is less easily come by, and it may be, as a result, less easily lost. Now that, in this edition, the *Common Sense* is published in two volumes, it is made more possible for the student to obtain the advantages of Wicksteed's treatment and thereafter to be more aware of the general conformation of economic science.

J.S.

British Railways in Boom and Depression. By C. DOUGLAS CAMPBELL.
(P. S. King. 1932. 6s.)

IN this book, Dr. Campbell has provided a detailed examination of the effects of trade fluctuations on the prosperity of British railways from 1878 to 1930. His treatment of the subject divides itself into two parts; the first dealing with the period 1878 to 1912 and the second with the post-war period. The first period is examined by means of a statistical investigation based on the method of curve-fitting and employing third degree parabolas for the elimination of secular trends. These elaborate statistical manipulations must obviously have involved a great deal of labour on the author's part, though the net results are somewhat meagre and disappointing. This, however, is not due to any shortcomings in the investigation, which indeed is well done, but is due to the inadequacy of the material available.

The sections of the book devoted to the post-war period are less mathematical and it is to be hoped that the difficulty of the earlier chapters will not deter readers of a non-mathematical turn of mind from reading on into the later chapters. These contain much interesting information regarding the post-war conditions of our railways and provide a useful critical examination of the Railways Act, 1921, and of the relations of trade fluctuations to railway profits, wages, and charges under the terms of this Act.

Dr. Campbell points out that in the post-war period the railways have been adversely affected not only by general trade depression and road transport competition but also by changes in our industrial structure. To these might have been added changes in trading methods and consumer habits which have tended to decrease the average weight of consignments, thus involving the railway companies in greater cost for handling.

While he would admit that the Railways Act, 1921, improved the stability of the companies, many of which but for the amalgamations might now be on the verge of bankruptcy, Dr. Campbell has several trenchant criticisms to make regarding the fundamental provisions of the Act. He emphasises the lack of co-ordination between the actions of the Railway Rates Tribunal and the methods of wage regulation. He points out also that if the charges of the different groups were to be altered in varying degrees in accordance with differences in the prosperity of different parts of the country, railway users in those parts would suffer.

If the Rates Tribunal were to act in strict accordance with the law, it would be faced with the necessity of raising rates in times of trade depression and lowering them in boom periods, thus so far tending to accentuate, instead of alleviating the swing of the trade cycle. The Railways Act, 1921, he points out, established principles which in effect seem to approach the problem of cyclical profit fluctuations not by removing their fundamental causes but by trying to take the burden from the railways and to pass it on to other industries. He adds that other public utilities such as gas and electricity supply are also tied down by government regulations to this type of adjustment though it is desirable that profit control systems should be more plastic in order to reduce the amplitude of trade fluctuations. In this connection, however, it is desirable to point out that in these industries a Reserved Fund Account and an Insurance Fund can be built up out of profits to be used for the purpose of equalising dividends or meeting unforeseen contingencies, *e.g.*, under the provisions of the Gasworks Clauses Act, 1871.

The book as a whole is a very useful contribution to the study of railway economics, containing many illuminating comments on problems of current interest.

K.G.F.

Studies in Sociology. By MORRIS GINSBERG. (Methuen. 6s.)

Is Professor Ginsberg the only Professor of Sociology in England? Quite a considerable portion of this book is devoted to discussing what Sociology is and how it is related to other disciplines. For the benefit of those who need first aid in this matter, I quote a short paragraph from the first page of this book :

" Sociology, then, should deal with the whole tissue or web of social relationships. Since these relationships, presumably, depend on the nature of individuals in their relations (i.) to one

another, (ii.) to the community, (iii.) to the outer environment, the ideal of sociological explanation would be attained if every social event could be traced back to its sources in the vital and psychical forces of individuals as moulded by the complex interactions which constitute the life of the community, in contact with the outer environment."

I cannot myself make much of this ; but then I have always regarded the science of Sociology as the poor misbegotten ghost of a science. In the development of this theme Professor Ginsberg seems to me to hesitate between two conceptions—one of Sociology as synthesising the work of other sciences so far as their findings throw light on social problems, the other that of Sociology as an independent science with a method and problems of its own. But possibly he is right in thinking that these two conceptions can both be held simultaneously.

However that may be, it is evident from the later essays that to be a sociologist one requires to know a great deal that is not Sociology. In Essays II. to V. it is the historical factor, in the widest possible sense, that is most prominent. Essays VI. and VII. are almost pure psychology. Essay VIII. discusses the inheritance of mental characters on a biological basis. Essay IX. summarises the results of a detailed investigation into the interchange between social classes, probably the only paper in which no specialist knowledge is pre-supposed. Essay X., on the claims of eugenics, has a complex background of history, economics, and psychology, as well as biology.

Professor Ginsberg's learning and acumen are beyond question, and one can but welcome the effort which he makes to levy contribution on the departmental sciences for the illumination of social problems. Yet a doubt does suggest itself whether he is not casting his net too wide. Even judged as a collection of essays (which is what it is) the book seems to have too little unity : there is a felt lack of any central unifying concept, such as even an empirical science needs ; and one wonders further where he can find the students capable of following him intelligently in more than a fraction of his journey.

J.L.S.

British Trade and Industry—Past and Future. By G. D. H. COLE.
(Macmillan. 12s. 6d.)

It is a little difficult to keep up with Mr. Cole ; he appears to possess an apparently inexhaustible energy for the task of digesting the

vast flood of economic literature now appearing and of rapidly transforming it into fluent, lucid and comprehensive expositions for the general reader. It is surprising, in the circumstances, that the quality of his work remains so high. In this volume he presents a picture of the pre-war and post-war trends in British economic life which for balance and insight has no superior and which, whilst it leaves no important aspect of our economic life unconsidered, is more than a superficial examination of them.

But the range of the work, and the rapidly changing environment in which it has been carried out, undoubtedly make for many weaknesses. Some of the generalisations are far too sweeping and, in the light of subsequent events, (for this volume was completed late in 1931) reveal how little the economist does know and how simple are the mistakes into which he can slip. Thus Mr. Cole says, speaking of the possibility of a general protective tariff in this country, "I do not see how any sane man can doubt that any extensive step towards Protection by means of tariffs would tend to raise the level of our internal prices." And yet the establishment of our system of Protection has gone along with a falling price level. Mr. Cole obviously failed to foresee how, by Protection, we would be able to "sweat" other countries, particularly agricultural countries. Again, the mass of detailed statistics with which he must necessarily deal, leaves him often at the mercy of series which he does not fully understand. One mistake of this kind is very important. Mr. Cole, at several points in the volume, stresses the fact that the world crisis found its centre in the United States and that the collapse there in 1929 was partly to be attributed to the fact that wages failed to "rise at least as fast as the efficiency of production." He considers, in short, that American experience is proof of the strength of Hobson's contentions. But the statistical material upon which he bases his conclusions is ludicrously inadequate. The truth is that there is no reliable statistical proof of his argument. Indeed the most reliable estimates tend to show that wages and salaries, as a proportion of national income, were actually increasing in the United States between 1922 and 1929. Other mistakes undoubtedly arise from an over-rapid scanning of published material and the failure to allow for subsequent events. Thus, in 1931, he considers that the cotton industry was still suffering from the effects of the financial boom of 1919-20 and that "it is still head over ears in debt to the banks." But he ought to have known that, by that time, the capital of the industry had been

written down almost to nothing and that the Lancashire Cotton Corporation (which he repeatedly refers to as the Lancashire Cotton Trade Corporation) gave nothing but paper for the physical assets which it acquired.

Purists might be inclined to condemn Mr. Cole for mistakes of this kind. And it must be admitted that if he can make small errors he is perhaps just as likely to make a major blunder. And yet it is impossible to leave this volume without the thought that its power, imagination and sweep more than compensate for the occasional lapses.

J.J.

The Means to Prosperity. By J. M. KEYNES. (Macmillan, 1s.)

THE means to prosperity of Mr. J. M. Keynes is a policy of world-wide expenditure on "public works" on a monetary basis buttressed by the creation of new central bank reserves by a supra-national authority. In support of public expenditure Mr. Keynes advances the arguments that tell so heavily in a world burdened with heavy unemployment, but the most significant feature of this tract is that it presents a coherent plan which, within the framework of the international gold standard, is designed to raise the world out of depression by repairing and straightening a distorted and sundered price structure. It is impossible to call into question here the economic features of this general plan. Even to-day, when one is apparently expected to be aggressively a reflationist or violently in favour of the pacifism of waiting for the natural end of the disorder, either view needs documented and detailed argument. And if one stands unexpectedly, bewildered and not a little cautious, finding it difficult to separate the political from the economic and the monetary from the psychological, feeling ignorant, incidentally, of the political and psychological, and wondering in this ignorance whether one can have knowledge of the economic, then argument is endless, agreement is conjectural, disagreement a little fractious, and, perhaps, not a little envious.

Certainly, in *The Means to Prosperity*, Mr. Keynes is confidently a reflationist, and it is probably wise to accept this latest croak of a Cassandra who previously has croaked opportunely and judiciously, if without sympathetic attention. It is, then, the ability of the plan to achieve the end of its author on which we must concentrate attention. There are three major points in the plan which, I think, without being over critical, one can say are not wholly satisfying.

Two of these points may be classed as economic, the third as political.

First, Mr. Keynes puts forward the view that in this country the psycho-monetary forces have arrived at such a point in depression, that a major reflationary force, applied with boldness, could impart a natural impetus that would stand a good chance of lifting us out of our misfortunes. If we assume that this is true, as it may perhaps be assumed with justice, can we assume also that the remedy which could be tried here with such gratifying results is also wisely applicable elsewhere? May not the remaining patients, after the initial rejuvenation, fall back into a decay now unresisted by the energy so riotously expended. Perhaps it is a question of the amount of the dose; too small a dose is worse than useless, too large a dose, perhaps, worse than that, and the right dose—if there is a right dose—still being large, may well frighten the patient from the treatment. The results of the widespread application of this remedy must be largely conjectural, and it is mere foolishness to say that no result could be worse than our present condition. Whether Mr. Keynes' projected central banking reserves would allow more successful treatment within a reasonable period of time also seems conjectural. It is clear that the more successful the action taken individually by one nation, regardless of the non-acceptances of its policy by the rest of the world, the greater would be the danger that repercussion effects of that policy would nullify its beneficial effects.

Secondly, Mr. Keynes proposes that, subject to limits on the amount receivable by any one country, the supplementary central bank reserves should be issued to gold standard countries in proportion to their individual gold holdings at the end of 1928. These supplementary holdings are designed to give central banks a greater confidence in carrying out the reflation to normalcy. It is, of course, particularly easy to cast doubts on the wisdom of the choice of any period as being a period of normalcy, and no doubt Mr. Keynes is more disposed to get additional central bank reserves than to argue about the precise proportion in which they should be allotted. But this proportion seems to be the parent of the two remaining deficiencies of the plan. Whatever were the causes of the depression, it can hardly be doubted that one of the important consequences is a mal-alignment, not merely of the vertical price structure, but of price levels having roughly equivalent positions in the stages of production. Some wholesale prices are too low relatively to others and relatively

to the profits on their production, or too low relatively to their supplies. But they may be too high relatively to other prices relatively to their supplies as those stand in relation to the supplies of other products in equilibrium positions. The supplies of different products, moreover, are internationally localised, so that the prices of products are subject to the influences of local monetary conditions. In the long period, international equilibrium influences will no doubt be paramount, but in the short period, which is yet as we know sufficiently long to allow disequilibrium to become deep-seated, the influence of world monetary forces can and in certain cases may from experience be neglected. Hence, the conditions which regulate local monetary influences, in relation to the sum of local monetary influences which constitutes the world monetary behaviour, may be of paramount importance. It is, therefore, of considerable importance to enquire whether the proportionate distribution of central bank reserves at the end of 1928 was in consonance with an equilibrium relationship of local price levels. If this was not the case, there is the danger that proportionate increases in central bank reserves on the basis of 1928 reserves will relatively raise prices that to the world position are already relatively too high, or increase relative supplies that are already relatively too great. And, if this is done, there is the possibility of creating such a tension in the economic system that a further collapse must result. To the reflationist this is of course a danger of practice and not of principle, but the fact remains, either in managing a world or a domestic reflation, that it is difficult to establish a criterion to judge the appropriateness of action. This appears to me to be very closely related to a theoretical indefinitiveness.

The distribution of reserves leads us to the third difficulty. Is *The Means to Prosperity* a practicable means? Almost every plan for alleviating the troubles of the post-war world has failed not so much because the plans put forward have not been susceptible of conveying real benefit to every community, but rather because different communities have perceived ways of altering each plan to obtain rather greater apparent or real benefits to themselves. Schemes for European amity and stability, for disarmament, for tariff reduction, for reducing international indebtedness, for obtaining "security," for ameliorating the conditions of depressed world industries and for nearly all major world problems, have all failed because nations have failed to agree upon the distribution of the gain which it is supposed would result from common and co-operative action.

Optimists, perhaps their outlook really should obtain for them the classification of pessimists, continually hope that successive disasters and disappointments will at last induce all nations to be so eager for any measure of benefit that they will be less mindful of the benefits obtained by their neighbours. Whether events will thus turn out is undoubtedly a matter of opinion, but it is clear that international politics is by tradition, if not wholly by reason, concerned with relative positions. And this tradition is a tremendous barrier to solution by international agreement. It is ludicrous to contemplate complete international agreement on a policy of reflation through public works investment, and yet a failure to implement this policy by disagreement on the proportion in which central bank reserves should be distributed. It may be true that the gold standard has had such a hammering that the principle of "artificial" gold reserves may be accepted universally, but the distribution of these reserves may in two ways be a complete barrier to successful exploitation of this agreement. In the limit, it may make entirely impossible the creation of any "artificial" reserves; on the other hand, it may allow the creation of reserves but necessitate a distribution of them that is inappropriate to equilibrium conditions. It will clearly be fortunate if two antagonistic disequilibrating forces which cannot be measured, are placed in random juxtaposition to produce equilibrium.

For these reasons the problem of reflation has largely ceased paramountly to be a scientific problem. Its solution necessitates a weighing of imponderables, and clearly calls for courage. But the importance of the problem is such that those who, on either side, are rational and forceful advocates are in a position of no little strength *vis à vis* their timid, cautious, and, perhaps, equally dangerous confrères.

J.S.

TRADE FLUCTUATIONS AND ACCIDENTS TO RAILWAY EMPLOYEES

I

1. Of the many effects which follow from fluctuations in trade activity only a few of the more obscure have escaped investigation by economic statisticians. Births, deaths, marriages, crime, poverty, disease—all these and more have been reduced to some acceptable form of arithmetical dependence on the business cycle. But, so far as can be ascertained, no recent general study has been made of the correlation between industrial accidents and business activity in Great Britain. This note is designed to cover part of the field, by surveying the course of accidents to British railway employees over the years 1878 to 1931. That the sample is significant can be gauged from the magnitude of railway employment (615,592 men in 1931) ; that the results manifest peculiarities, not obvious from a cursory consideration of the problem, will appear later ; and that the conclusions are of practical importance follows from the fact that, in 1931, the lowest recorded year, about 17,000 men suffered serious accidents, whilst compensation cost the railways £303,258, apart from substantial losses of work as a result of the far greater number of accidents which did not involve money compensation. These calculations take no account of effects on the health and happiness of the employees.

II

1. Statistical difficulties complicate the problem. So much depends on the nature of the material and the methods of manipulation, that it is necessary to offer some preliminary explanations in order that the results may be valued at their proper worth.

Accidents are of two kinds, fatal and non-fatal. On account of their objectivity, the former constitute a far safer statistical unit, for the purpose of measuring cyclical fluctuations, than do the latter. Non-fatal accidents cannot, however, be neglected, as the amplitude of accident fluctuations depends very closely on the precise definition which one accepts for the term "accident."

Unfortunately, non-fatal accidents have been subject to different definitions at different times during the years 1878—1931, with the inevitable result that comparability has been seriously affected as between the three periods 1878—1895, 1896—1906, and 1907—1931.¹ In order to link up the statistics of the different periods, it is necessary to introduce a "correction factor," which will artificially reduce all non-fatal accidents to the same base. This is done by assuming that the real long-period alteration in *non-fatal* accidents (apart from that due to changes in definition) as between 1875—95, 1896—1906, and 1907—31, was in exact proportion to the alteration in *fatal* accidents over the same periods, because no change took place in the definition of fatal accidents. Multiplying with the appropriate factor, the effects produced by changing definitions can be allowed for, and more or less comparable time series can be secured over the whole period 1878—1931.²

Apart from the distinction between fatal and non-fatal accidents, one can also separate the gross total into three quite significant groups, according as the causes are to be found in (a) accidents to trains, (b) other vehicle movements, or (c) non-movement operations. These groups are self explanatory. There is therefore no need to describe them in detail, beyond noting that group (c) covers for the most part the type of work done in stations and on the permanent way.

¹ Prior to 1895 there was apparently no uniformity of practice in reporting non-fatal accidents to the Board of Trade (Royal Commission on Accidents to Railway Servants, 1900, Cd. 42, Qu. 25). An order of the Board, dated October 31st, 1895, Section 3, required non-fatal accidents to be reported "whenever they were such as to prevent the servant injured, on any of the three working days next after the occurrence of the accident, from being employed for five hours on his ordinary work." This led to a large increase in the number of accidents reported in the Annual Accident Returns for 1896 onwards. The Railway Employment (Prevention of Accidents) Act, 1900, also widened the scope of the definition very slightly, though its effect was probably not great. Finally, an amending order was passed by the Board of Trade on December 31st, 1906, Section 3 of which required non-fatal accidents to be reported "whenever they were such as to cause the servant injured to be absent at least one whole day from his ordinary work." Together with the fact that a considerable number of accidents occurring in goods warehouses, previously returned as factory accidents, were included in the Returns following 1906 and that more regular reporting was ensured by the greater simplicity of definition, the result was to inflate the number of reportable accidents without in any way implying a real increase.

² The method was suggested by a similar one used for a similar purpose by Mr. H. Verney in a paper on "The Recent Considerable Increase in the Number of Reported Accidents in Factories," (JOURNAL ROYAL STATISTICAL SOCIETY, Vol. lxxiii., Part II., 1910). As Mr. Verney's analysis received commendation from the statisticians present at the reading of the paper, I have assumed that its extension in the present instance will also meet with approval.

A further characteristic of the statistical material is the break in continuity caused by the war. Some series can be obtained practically without break even during these exceptional years, but, for those which it is proposed to examine, data is lacking over the years 1915-18. This hiatus necessitates separating the periods 1878-1914 and 1918-31 for the purpose of trend and amplitude calculation.

2. It is not possible here to give all the raw material on which the conclusions are based. At the risk of offering the answers to an exercise in higher algebra, without showing the workings, I propose merely to describe briefly the various results which have been secured with such material and methods as have been at my disposal.

Goods traffic receipts have been selected as the best index of traffic activity, 1878-1912, not because they are perfect, but because they are probably the best available. For the same reasons, the originating tonnage of general merchandise has been used for the post-war years.

Broadly speaking, secular trend has been removed from the crude data by curve-fitting methods, in which straight lines, second and third degree parabolas have each played a part (see Table III.). The amplitude of the resultant percentage cycles¹ has been measured by the calculation of standard deviations, and correlation coefficients have been used to give objective backing to inter-relationships not easy of appraisal by the eye. Finally, graphic illustration has been used in order to present the results in a form which admits of ready appreciation.

3. For the pre-war period the results are as follows :

(a) Goods Traffic Receipts (Curve 1). Between 1878 and 1912 these reveal four complete cycles of activity, in which boom follows depression in tune with general trade conditions. For the years 1878-1912 the standard deviation (S.D.) about trend is 3.25 per cent., and for the years 1879-1912 it is 3.14 per cent.

(b) Train Accidents.

1. *Fatal*. These figures are so small (average, 1878-1914=10 accidents per annum) that it is impossible to deduce any sound conclusions from them.

¹Those who are interested in the detail of calculation should refer to Tables I. and II., but those who merely want the conclusions should refer only to what follows in § 3, and in the charts.

2. *Non-fatal* (Curve 3). Average number of accidents, 1878—1914=158 per annum. Owing to the random nature of the basic figures, trend has been removed from three-year moving averages in this case. Correlation with goods traffic receipts, 1879—1912= $+59 \pm 11$. S.D., 1879—1912=19.63 per cent.

(c) Other Vehicle Movements.

1. *Fatal* (Curve 5). Average number of accidents, 1878—1914=436 per annum. Correlation with goods traffic receipts, 1878—1912= $+60 \pm 10$. S.D., 1878—1912=10.8 per cent.

2. *Non-fatal* (Curve 6). Average number of accidents, 1878—1914=4,530 per annum. Correlation with goods traffic receipts, 1878—1912= $+65 \pm 10$. S.D., 1878—1912=9.4 per cent.

(d) Non-movement Accidents.

1. *Fatal*. The average number of accidents (1878—1914=41 per annum) is too small to enable sound conclusions to be drawn.

2. *Non-fatal* (Curve 4). Average number of accidents, 1878—1914=16,420 per annum. Correlation with goods traffic receipts, 1878—1912= $+66 \pm 10$. S.D., 1878—1912=13.6 per cent. The high correlation coefficient is somewhat artificial in this case.

For the post-war period the conclusions, though differing in some rather important aspects, are broadly similar :

(a) Originating Tonnage of General Merchandise (Curve 2). In this case the period is peculiar, but the boom of 1920, the depression which followed, the gradual recovery and the final slump of 1930—31 are clearly marked. Special note should be made of the coal strike in 1926. S.D.=8.4 per cent.

(b) Train Accidents.

1. *Fatal*. The figures are again too small for analysis. Average, 1919—31=8 accidents per annum.

2. *Non-fatal* (Curve 3). Average number of accidents, 1919—31=107 per annum. Correlation with general merchandise, 1919—31= $+79 \pm 10$. S.D., 1919—31=20.8 per cent.

(c) Other Vehicle Movements.

1. *Fatal* (Curve 5). Average, 1919-31=220 accidents per annum. Correlation with general merchandise, 1919-31= $+0.82 \pm 0.10$. S.D., 1919-31=15.4 per cent.

2. *Non-fatal* (Curve 6). Average, 1919-31=3,240 accidents per annum. Correlation with general merchandise, 1919-31= $+0.91 \pm 0.05$. S.D., 1919-31=10.6 per cent.

(d) Non-movement Accidents.

1. *Fatal*. Average number of accidents, 1919-31 (39 per annum) too small to yield sound results.

2. *Non-fatal* (Curve 4). Average, 1919-31=15,500 accidents per annum. Correlation with general merchandise, 1919-31= $+0.88 \pm 0.06$. S.D., 1919-31=9.2 per cent.

4. Visual inspection of the curves, together with the supplementing evidence in § 3, provides ample justification for two broad conclusions.

Most obvious is the normally close relationship between fluctuations of traffic volume and fluctuations of accidents. In the pre-war period there is no correlation coefficient as low as $+0.50$, and, considering the large number of observations (37), this may be regarded as a highly satisfactory result. Between 1919 and 1931 the coefficients each exceed $+0.78$ —again eminently sound support for the *prima facie* relationship. It is true that occasional lapses from type occur, but the general case may be taken as proved.

Hardly less striking is the greater amplitude of accident fluctuations as compared with fluctuations of traffic volume. Herein lies the peculiarity of the results, for it would seem reasonable, at first sight, to suppose that accidents and volume of production should fluctuate in unison as regards magnitude as well as regards direction. But further study of the factors affecting the situation suggests that this "peculiarity" is likely to be "normal" for all industries, at least so far as short-period fluctuations are concerned. It remains to be considered whether or not the railway industry is liable to manifest these characteristics in a special degree. It is noteworthy that the difference in amplitude of fluctuation between traffic volume and accidents has been rather less since the war, *i.e.*, during the years when the secular trend of traffic has changed to a downward direction. This suggests that the factors in cyclical accident causation are likely to be stronger during long periods of

increasing activity than during long periods of decreasing activity. Even if there were no figures to indicate this tendency, general reasoning would lead to the same conclusion, for such factors as new labour, lack of facilities for dealing with traffic, *etc.*, are bound to be of greater importance with a rising demand for transport. With a declining secular demand, cyclical fluctuations tend to take the form of temporary recoveries from a general dismissal of existing labour or from a general excess of facilities. In view of the gradual secular decline of railway traffic which is taking place as a result of motor competition, changing industrial technique and trade habits, this suggestion is of some importance for those who wish to forecast future accident fluctuations.

III

1. Turning to the causes which underlie the close relationship between traffic conditions and accidents, and looking more closely for reasons which might explain the greater fluctuation of the latter, one cannot discover direct and incontrovertible evidence which will provide a satisfactory answer. By inference and from indirect sources, however, a number of contributory influences can be discovered at work.

In a broad way, every industrial accident may be regarded as a collision, *i.e.*, a meeting of some part of the human body with some part of a machine, and it follows that fluctuations in the number of accidents may be brought about by causes operating through either the human agents or the mechanical agents in the resulting collisions. But the distinction between "human" and "mechanical" causes is not perfectly rigid, because every machine is the product of human labour, and faulty construction, which may eventually lead to an industrial accident, though apparently being manifested through what would usually be called a "mechanical defect," may ultimately be reduced to terms of human causes. Thus congested conditions on a railway system may not only put unsafe pressure on those who are responsible for working the traffic, but also on those who inspect, repair, and clean the machines used for that work, with the inevitable result that the operating staff is exposed to increased danger from two sources.

2. On the human side, the number of accidents will, to some extent, be a function of the number of men employed. It is therefore unfortunate that no reliable figures of employment are available

for the pre-war period, except at rare intervals.¹ Only by assuming that the fluctuations of goods traffic revenue (Curve 1) afford a reasonable indication of probable fluctuations in employment can we arrive at anything in the nature of a useful estimate. And in these it seems unlikely that the whole explanation is to be discovered, because they are so small relative to accident fluctuations. In the post-war period the same rough result can be deduced.

But the significance of fluctuations in employment lies not so much in their absolute magnitude, as in the fact that the increases in booms are increases of new or inexperienced men, who are specially liable to accidents; whilst the decreases in depressions are likely to be decreases of the inefficient, whose accident "proneness" is particularly high.² That new staff can lead to large increases in accidents, even during periods of reduced traffic, was proved during the war, when women were recruited into the industry and the remaining men had to do work of which they had no long experience. Hence, small fluctuations in the absolute amount of employment are quite capable of producing relatively large fluctuations in the number of accidents.

Apart from fluctuations in the number of men employed, it seems probable, too, that pressure of traffic during booms has caused increased burdens to fall on the shoulders of the existing staff, in the form of speedier work throughout the ordinary working day, or overtime at night. Increased speed of working usually involves accidents at a more than proportionate rate,³ whilst overtime is specially productive of laxity in the worker's vigilance.⁴

¹Prior to the war, censuses were held in 1873, 1884, 1889, 1895, 1898, 1901, 1904, 1907, 1910, and 1913, sometimes on December 31st of the year, sometimes on March 31st, and sometimes on no specified date. The Board of Trade used to compare the 1873 and 1884 figures with those of other years quite without justification, as they only related to part of the staff (*Vide* H.L., Accs. and Papers, 1874, Vol. xiii., p. 369 *et seq.*, and H.C., Accs. and Papers, 1884, Vol. xxiv., p. 307 *et seq.*).

²On the relationship between industrial accidents and inexperience, *vide* Aftalion, *Crises Périodiques de Surproduction*, Vol. I., pp. 240-3; also Stephenson, "Industrial Accidents," in *Industrial Psychology* (Ed. C. S. Myers), p. 134.

³On the relationship between speed of work and accidents, *vide* Vernon, *The Industrial Clinic*.

⁴For a description of the effect of long hours on railway accidents in the early period, *vide* G. D. H. Cole and R. Page-Arnot, *Trade Unionism on the Railways*, pp. 17-8, quoting the Select Committee on Railway Servants (Hours of Labour), 1892; also the Evidence of the Royal Commission on Railway Accidents, 1900, p. 120. Further general evidence, not specifically relating to railways but of value for corroborative purposes can be secured from B. Muscio, *Lectures on Industrial Psychology*, pp. 55-7 and from the chapter on "Work and Rest," by Rex Knight, in *Industrial Psychology* (Ed. C. S. Myers).

3. On the mechanical side, there is ample statistical evidence of a definite lag in the provision of extra rolling stock, *etc.*, to meet cyclical increases of traffic,¹ and it is probable that the same rule has applied to many other types of contrivance. Faced with the urgent necessities of the moment during periods of rapidly expanding traffic, it is not unlikely that the railways have been compelled at these times to use material which otherwise might have been scrapped, or to hasten unwisely their repairs and inspections of rolling stock. Of direct evidence there is none, but the *prima facie* case is quite strong.

4. A further cause, which can with difficulty be assigned to either human or mechanical agency, is to be found in the mere fact of traffic density. Apart from the extra effort which an increase of traffic is likely to call for on the part of the worker, mere mathematical probability suggests that there is also greater exposure to danger. The small boy on the sands, who has unsuccessfully tried to hit an upright stick with pebbles thrown one at a time, in the end picks up a whole handful and triumphantly knocks it flat. There is no change in the nature of the individual stones or the stick, but the bombardment is heavier, and he knows that he is unlikely to miss. The principle is also true of men working amongst traffic of varying densities, for, the denser the traffic, the more likely is it that accidents will occur.

5. These are the chief ascertainable influences bearing on accidents, which arise from fluctuations in trade activity. To list them in order of importance is impossible. In some cycles one factor may count most, but, in others, the same factor may play a less important part. And there may be many other less obvious influences in addition.

The results of their combined action is to be sought, not in their sum so much as in their product. For example, if it be assumed that the variables causing the result are four in number, that their influence is directly proportional to their quantity, and that, at any particular time, they each exert twice their normal pull, the effect is to increase the result sixteenfold. With twice the number of employees, working in twice the amount of traffic, on machinery which is likely to cause twice as many accidents, and at a speed which is likely to increase their accident proneness twofold, sixteen

¹ *Vide* my paper on "Cyclical Fluctuations in the Railway Industry," in the Transactions of the Manchester Statistical Society, 1929-30, pp. 13-15.

times the normal number of accidents might be expected. On the basis of the arguments already used, it is clear that an increase in the number of employees may lead to a more than proportionate increase in accidents; congestion of traffic, within limits, may increase accidents more than in proportion to tonnage; and so on. Moreover, on the "product" argument, secular trend might have been expected to increase quite considerably, despite the improvement of working conditions. To claim an accurate relationship which can be expressed in terms of an exact mathematical function is to claim too much. The general relationship, however, may be put forward as one of the possible factors which have caused accidents to fluctuate more than traffic or employment.

IV

1. The facts themselves have value only in so far as they can be put to practical use. They emphasise, for example, the desirability of psychological tests for "accident proneness" in all forms of industrial activity. Such tests are not unknown in the railway industry.¹ Each year large numbers of new men are drafted into industry, and it would certainly be an advance if some general form of test could be devised for use, not only by British railways, but by all industries subject to a heavy toll on life and limb.

2. The investigation also suggests that the railways, and similar industries, must always look forward to variations of accidents greater than those of output or employment. To know that trade is likely to improve is useful; to know that it is likely to affect output is also of value; but to know that the annual national cost for accident compensation to employees will vary more than in proportion is a significant fact which seems hitherto to have escaped recognition.

At the present time British railways are so large that they can afford to carry their own risks rather than deal with outside companies. But most industrial firms resort to insurance as a means of securing themselves against large contingent liabilities in this direction.

The railway companies could spread the fluctuations in compensation over a period of years by internal adjustment of an Accident Insurance Reserve Account, which would accrue funds in

¹"Vocational Tests by the German Railway Company," by D. A. Lamb, JOURNAL INSTITUTE OF TRANSPORT, Vol. 11, N. 2

bad years and lose them in good. No very marked effects on annual profits would result, it is true, but the great magnitude of typical railway statistics should not be allowed to obscure the fact that appreciable advantages can be gained by the manipulation of quite small items of account.

The large insurance companies who deal in Workmen's Compensation business must also expect the charges on their funds to fluctuate violently as between periods of good and bad trade. In fixing their premiums they could make special allowances, in certain circumstances, for firms who would be willing to insure, not year to year, but for a period sufficiently long to enable the risks to be averaged over the business cycle. They might, in addition, allow for differences in the amplitude of cyclical content manifested by different types of accident. The present study only covers a portion of the field, and the material on which it is based has undoubted limitations, but the insurance companies might, with the more detailed information at their disposal, reduce the phenomena to fairly exact laws.

3. The results bear on more questions than can be assessed in terms of pounds, shillings, and pence. Less tangible problems of human happiness and health are also affected. On purely humanitarian grounds, both the companies and the unions might consider the advisability of encouraging further research into accident causation from the psychological rather than from the mechanical point of view. Funds may be low at the moment, but those who look forward to improved trade conditions could turn their optimism to good account by preparing to reduce the inevitable increase in accident compensation. That efforts in all directions—whether of psychological tests, “safety-first” campaigns, or mechanical improvements—should be exerted more strongly in anticipation of an upward swing of trade, is the logical conclusion which follows from the present survey.

University of Liverpool.

C. DOUGLAS CAMPBELL

TABLE I

Accidents to Railway Employees : Percentage Cycles, 1878—1914.

Year.	Goods Traffic Receipts.	Non-fatal in Train Accidents (Three-year Moving Average).	Other Vehicle Movements.		Non-fatal in Non- Movement Accidents.
			Fatal.	Non-fatal.	
1878	--4.50	—	+ 8.1	— 1.8	—23.9
1879	--4.67	+ 9.9	— 8.9	— 5.3	—20.7
1880	+1.59	+12.5	+ 7.9	— 2.3	—12.1
1881	+2.98	+19.3	+ 1.9	+10.2	+25.9
1882	+5.41	--10.6	+ 7.4	+13.9	+25.6
1883	+6.92	— 3.0	+11.9	+ 8.6	+ 5.5
1884	+2.68	--20.4	+ 6.3	— 2.0	0.0
1885	--1.08	--25.3	— 9.1	--11.7	--15.6
1886	--4.15	--26.0	--14.7	--18.0	--13.1
1887	--3.30	--23.0	--14.3	--18.5	--12.0
1888	--1.53	— 9.9	--19.7	--14.2	— 0.4
1889	+2.29	+ 2.0	--10.1	+ 6.4	+21.1
1890	+2.85	+20.8	+ 1.9	+18.0	+30.4
1891	+3.06	+14.0	+12.1	+16.9	+19.1
1892	0.0	— 8.0	+ 9.8	+ 8.5	+ 4.1
1893	--6.79	--33.8	— 6.7	— 3.2	--20.7
1894	--3.64	--36.3	— 1.5	— 0.9	--15.3
1895	--4.37	--16.3	— 9.3	— 5.5	— 0.4
1896	--1.83	+ 3.9	— 4.2	— 0.8	+ 0.3
1897	--0.56	+ 9.6	+ 6.7	+ 1.9	+ 3.8
1898	+0.04	--21.8	+ 6.1	+ 2.5	— 9.4
1899	+3.68	--32.6	+12.8	+11.7	+13.3
1900	+4.08	+45.4	+24.6	+10.6	+15.6
1901	+0.87	+22.4	+13.0	+ 1.8	+ 9.0
1902	+1.87	+11.7	— 0.2	— 8.3	+ 2.7
1903	+0.53	+ 0.1	+ 1.7	--10.0	+ 6.4
1904	--0.94	0.0	— 5.3	— 7.6	+ 5.0
1905	--0.96	— 1.1	— 8.3	— 9.8	+ 1.0
1906	+0.68	+16.3	— 0.2	+ 2.6	+10.7
1907	+3.71	+18.9	+ 7.5	+ 8.6	--14.9
1908	--2.03	+ 7.9	— 8.6	— 3.0	+ 0.4
1909	--2.69	--16.7	--21.6	--10.3	— 1.9
1910	--0.94	--25.8	— 6.0	--10.1	— 1.0
1911	+0.61	--20.6	— 2.7	+ 2.0	+ 4.4
1912	+0.42	--12.2	--11.4	+ 7.3	+ 0.7
1913	—	--11.6	+10.5	+11.7	— 0.6
1914	—	—	+13.6	— 0.8	--10.7

TABLE II

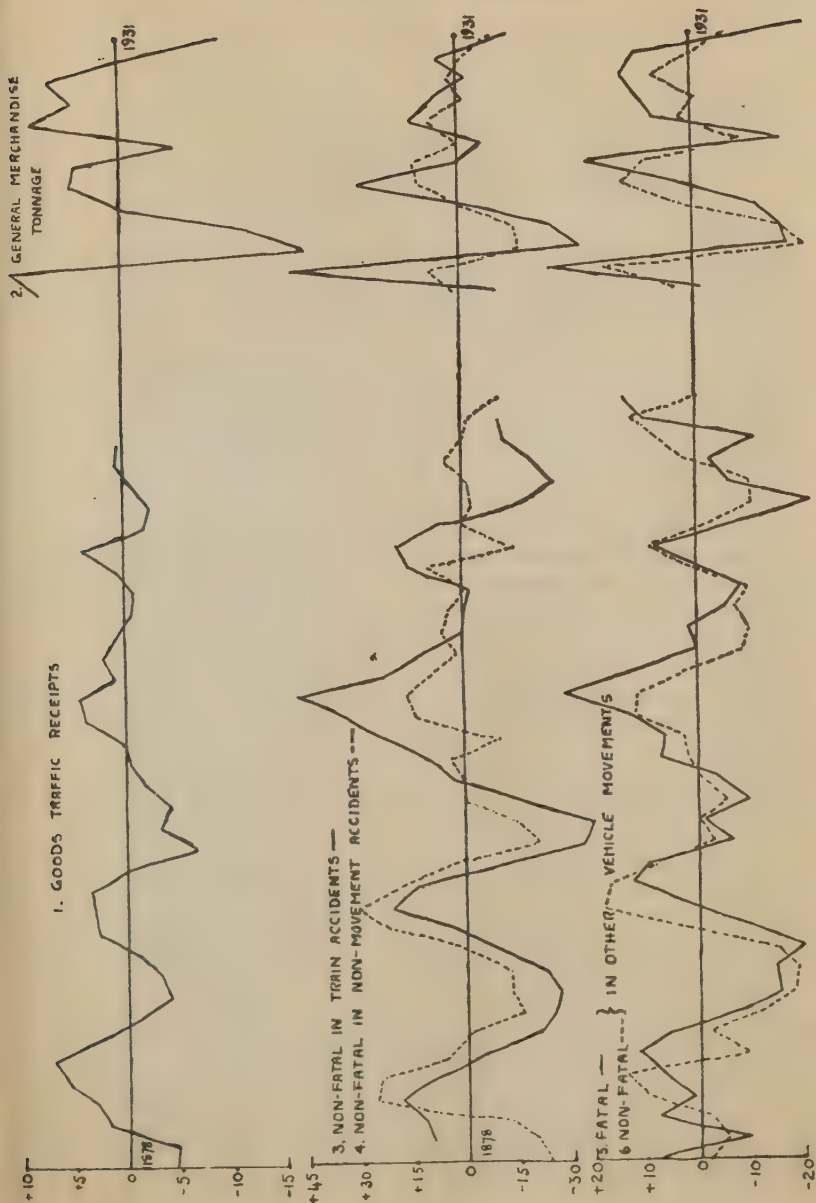
Accidents to Railway Employees : Percentage Cycles, 1919-31.

Year.	Originating General Merchandise	Non-fatal in Train Accidents.	Other Vehicle Movements.		Non-fatal in Non-movement Accidents.
			Fatal.	Non-fatal.	
1919	+ 7.6	-10.1	- 1.9	+ 3.6	+ 2.5
1920	+10.3	+47.9	+26.6	+16.3	+ 9.0
1921	-17.6	-34.8	-17.8	-21.4	-17.3
1922	-12.3	-26.5	-17.1	-17.1	-16.1
1923	- 0.3	- 5.4	-11.8	+ 2.9	0.0
1924	+ 4.6	+27.5	+ 3.3	+12.9	+11.0
1925	+ 4.2	0.0	+19.8	+ 9.2	+13.5
1926	- 5.3	- 6.7	-17.6	- 9.7	0.0
1927	+ 8.3	+13.6	+ 7.5	+ 2.3	+ 8.0
1928	+ 4.4	+ 6.9	+ 9.8	- 1.0	- 1.3
1929	+ 6.5	- 2.0	+12.6	+ 6.7	+ 2.6
1930	- 0.2	+ 6.2	+10.9	- 0.3	- 1.9
1931	- 9.7	-14.7	-22.3	- 6.1	- 9.1

TABLE III

Trend Formulæ to Statistics in Tables I. and II.

1. Goods Traffic Receipts, 1878—1912 : $y=4441+102.7x+1.146x^2-0.0717x^3$.
2. Originating General Merchandise, 1919-31 : $y=573-9.08x+.22x^2$.
3. Non-fatal Accidents in Train Accidents (Three-year Moving Average), 1879—1913 : $y=158-.27x$.
4. Non-fatal Accidents in Train Accidents, 1919-31 : $y=107-1.98x$.
5. Fatal Accidents in Other Vehicle Movements, 1878—1914 : $y=450-3.25x-.120x^2$.
6. Fatal Accidents in Other Vehicle Movements, 1919-31 : $y=202-10.26x+1.33x^2$.
7. Non-fatal Accidents in Other Vehicle Movements, 1878—1914 : $y=478+4.36x-.223x^2$.
8. Non-fatal Accidents in Other Vehicle Movements, 1919-31 : $y=326-6.8x-.15x^2$.
9. Non-fatal Accidents, Non-movement, 1878-94 : $y=1422+73.2x$; 1892—1914 : $y=1619+22x+4.34x^2$.
10. Non-fatal Accidents, Non-movement, 1919-31 : $y=155-.14x$.



FREEDOM AND PLANNING : A REPLY TO PROFESSOR GREGORY

THE gravamen of Professor Gregory's charge against the proponents of economic planning¹ is that they are destroyers of liberty. They themselves are "meddlesome," their motive (when not "the sadistic desire to destroy the rich") is "the desire to assert themselves at the expense of others," and their projects involve the disappearance of consumers' freedom of choice from the economic system and its replacement by arbitrarily chosen economic ends (chosen, it is implied, by bodies over which the ordinary consumer will have no control).

In his eagerness to show that all schemes of economic planning destroy liberty, Professor Gregory attempts also to assert the even less defensible proposition that all social schemes inimical to liberty involve economic planning. To this end he keeps dragging in references to Fascism and to the Nazi persecution of Jews, ignoring the facts that after eleven years of Fascist rule in Italy the corporative state is scarcely more than a rough draft and that the corporative economy has produced little more than compulsory arbitration and a glorified Whitleyism, while the doctrines of German National Socialists (it is too early to speak of their performances) in the matter of economic reconstruction are vague to the point of non-existence, as befits those who think with their blood rather than with their brains.

Apart from these extravagances, however, the case that Professor Gregory has stated—*Liberty v. Planning*—is a real case. It is a case that must be answered by those who, like the author, believe in liberty and yet believe that only in a more ordered framework of society is true liberty attainable.

The argument of this paper falls into two parts : first of all the (implicit) minor premiss that capitalism implies freedom will be criticised ; secondly the main (explicit) contention that planned economy necessarily negates freedom will be analysed and attacked.

¹ "An Economist looks at Planning," THE MANCHESTER SCHOOL, Vol. IV, p. 1.

(1) *The assumption that freedom exists under capitalism.*

The picture of the capitalist system drawn in the text books is certainly a very charming one—a system, an order, working without any pre-arranged, consciously thought-out plan, but with all its parts working harmoniously together to the automatic unconscious integration of millions of separate individual ends. The mechanisms of price and substitution evolve order out of what would otherwise be chaos, without the necessity for the intervention of any higher control, and automatically apportion scarce means to the ends of economic subjects according to the principles of relative efficiency.

Now even if this picture were true in substance there would still be many criticisms to be made of the system so delineated. The description bristles with question-begging epithets which conceal fundamental inconsistencies in the thing described. But of this more anon. What leaps to the eye in the text-book account of capitalism is that it is an account of a system that does not exist at the present time and probably never has existed. It is the idealisation of a stage of economic evolution characterised by moderately extended markets, medium-scale machine production, a mobile labour force and an instructed body of consumers. In Great Britain, France, and the Northern United States, in the fifties of last century, will be found, if anywhere in place and time, the realisation of this ideal. But even so it stands, poised unstably for a few fleeting years, between the stages of mercantilism-cum-petty-handicraft on the one hand and of monopolistic finance-capitalism on the other. Nowadays the bases of the system are being eroded in three ways. First, the very scale of operations which is technically possible is building up units of production so large as to destroy the atomicity which is one of its bases. Second, the accelerating tempo of technical change, of change in international relative costs and of change in consumers' tastes is going beyond the point at which the mechanism of automatic self-adjustment can operate smoothly. Third, in the technique of publicity the entrepreneur has discovered a means of undermining the independence and objectivity of consumers' preference. The consumer still has freedom of choice—yes, freedom to choose between a pink toothpaste of unknown constitution and properties and a white toothpaste of equally unknown constitution and properties; freedom to choose between X's strawberry jam, "conforming to the full fruit standard of the Food Manufacturers' Federation," and Y's strawberry jam, conforming to the same standard. The variety of

choice offered in each line of goods and the number of different lines are nowadays so great that the consumer cannot acquire in all of them the expertise necessary to protect himself from fraud and extortion. *Caveat emptor* is an impossible maxim on which to found any economic activity except that of the advertising agent. It is only drastic state interference with the principle of substitution that has preserved for the consumer some modicum of security against fraud ; against extortion he has no defence.

Nor is the position any better for the ultimate producer. Where is the freedom of choice of occupation for the Alabama share-cropper when the world ceases to demand the cotton he grows? What liberty of choice is there for the Middlesbrough iron puddler when the automatic balancing of supply and demand on the international market indicates the necessity for the drastic lowering of the British price-and-cost level? When the demand for skilled engineers' services is halved by technological improvements there will, in a free price system, be an equivalent expansion in the demand for labour in some other occupations :—but in what? Hairdressing? Bill-posting? Within the limits of one occupation, moreover, what freedom is there in the choice of working conditions? A man offered work for long hours at low pay by one employer is free to chuck up the job and go in search of work for long hours at low pay at the behest of another employer. Until the workers organised themselves into trade unions, with their " arbitrary " interference with the free play of supply and demand, they had no real influence over the conditions of their working lives.

But the case against capitalism is stronger than this. Even if the system did in fact work according to theory, the claims that are made out for it as an instrument for the achievement of freedom are unjustified. It is asserted that the ideal free price system effects an adjustment of scarce means to the ends of economic subjects according to the principle of relative efficiency. But what are these ends? They are the ends of a multitude of separate and individual subjects (ultimate consumers). How are their ends expressed? By means of effective demand on the market? What determines the effective demand of any given economic subject? That share of the total sum of social claims which is allocated to him by the process of imputation of income, which is part of the price-system. In other words, once the premisses of the price economics are accepted, a surreptitious decision has already been taken as to whose ends are to be taken into consideration in the process of

adjusting means to ends. Professor Gregory's use of the words "relative efficiency" and "economy" on p. 4 of his article are question-begging terms. They assume an answer given to the questions: Efficiency for what? Economy with reference to whose ends? Doubtless a planned economy might satisfy different ends from those satisfied by a price economy, but when one has said that, can one, on Professor Gregory's premisses, go further? Now if there is one thing that is certain about a price economy it is that there is a grave inequality in the weighing of the ends of different economic subjects that compete for satisfaction. A week's maintenance for an unskilled workman together with his wife and children is equi-ponderant in the calculus of the price-economy with a dinner for one in a fashionable restaurant. The tendency to inequality, there is good reason to believe, is inherent in any individualistic economy (see my *Institutional Revenue*, Chapter V., § 29). The consequence of this tendency has been nowhere more trenchantly asserted than by F. von Wieser; "Prices cannot be taken without qualification as the social expression of the valuation of commodities; they are the result of a conflict waged over those commodities, in which power besides need, and more than need, has decided the issue. . . . These misshapen prices . . . which result from inequality in the means of purchasers are, I take it, inextricably bound up with our economic régime."¹ The system of economic control through price formation in the market has been described as a perpetual general election on economic issues conducted according to a meticulously accurate system of proportionate representation. But those who use this analogy usually fail to add that the electoral system is characterised by plural voting of the grossest type. The significance of this to our main subject is fundamental. Liberty and equality, as Laski has pointed out,² are not antithetical; they are complimentary. Liberty is only true liberty when it is based on equality of rights: otherwise it is a set of liberties for the privileged which circumscribe the liberty of the unprivileged. So a free market in which the contracting parties have a wide disparity of means implies an enlargement of liberty for the rich, but it implies a deprivation of liberty for the poor.

In other words, inequality of wealth gives power to those who own more than the average. The formal freedom of the price-and-market

¹"The Austrian School and the Theory of Value," *ECONOMIC JOURNAL*, Vol. I., p. 108.

²*A Grammar of Politics*, Part I., Chapter 4, § 3; *Democracy in Crisis*, p. 207.

organisation of society is simply a veil for a form of class-domination quite as oppressive as many of the more open forms of servitude that have existed in the past. It is in order to free the common man from this domination, and not because of the "attractiveness of power" to himself that the socialist desires collective ownership of the means of production. He has no need of a "sadistic desire to destroy the rich because they are rich": it is sufficient that the existence of the rich is a menace to the freedom of the poor.

(2) *The possibility of freedom under planning.*

So much of Professor Gregory's indictment of planning must be admitted as refers to the *possibility* of the destruction of freedom under planned economy. In the hands of an irresponsible controller (or group of controllers) it *could* be made the greatest tyranny that the world has ever seen. But must we admit the *necessity* of such a destruction of freedom? Planning, says Professor Gregory, involves a conscious choice of ends. But may not freedom be the end chosen? Is it not possible to plan for freedom, to plan for the abolition of the inequality which makes freedom a sham under capitalism and yet retain enough of the price-system to ensure the satisfaction of a plurality of ends as expressed by individual consumers?

Here it is necessary to intercalate a remark. Since "not all planners are socialists" there are socialistic and non-socialistic planned economies. A non-socialistic planned economy, one, that is to say, which was not based on the abolition of class-privilege, would by its very nature be as hostile as capitalism to that equality which is the guarantee of freedom and, in order to maintain inequality, would be obliged to trample on even the sham freedom that capitalism leaves to its subjects. Such an economy might be neat and tidy, but it could not be an instrument for the attainment of freedom. A socialist planned economy might reject freedom as a historical survival of no actual social importance, but at any rate its fundamental basis would not make it impossible to set itself the goal of freedom.

It is claimed, however, by Gregory and others, that freedom is absolutely incompatible with planning; that even if a socialist planner wished to realise freedom he could not do so and remain a planner.

Professor Gregory's main argument is that, since planning involves the deliberate choice of an end to be followed, it necessarily

involves the rejection of all alternative ends and the abandonment of all possibilities of change. Now I believe this argument to involve a false antithesis. It is like the argument which asserts that import duties cannot be at the same time protective and remunerative. "Either the duty keeps out the foreign products or the foreign products enter in spite of the duty. In the first case the duty brings in no revenue ; in the second case the domestic industry enjoys no protection." Of course, in actuality, *some* foreign wares may enter in spite of the duty, but less than would be imported if there were no duty. There may therefore be *some* measure of protection to home producers and *some* revenue for the treasury. So it is with the presumed antithesis of planning and flexibility. A plan can always be changed. When under the existing system a business man plans the construction of a factory or a government commission plans the reform of an agricultural market, the decisions taken are not immutable, nor are they put beyond the pale of public discussion. What is true of the partial plans that can exist in the interstices of capitalism may be true of the more comprehensive plans of a socialist community. But, it is argued, decisions once taken cannot be modified without loss. As soon as the possibility of change is admitted the element of risk creeps into the economic problem. This must be admitted. Elasticity of organisation and technique does introduce a penumbra of uncertainty into all economic calculations. If the community desires an economic machine that is responsive to changes in individual taste or productive technique it must pay for the advantages of flexibility by a certain margin of unavoidable loss. This is the cost of risk-bearing. It exists in planned as in unplanned economy. But is the only means of achieving flexibility the abandonment of the whole direction of resources to the company promoter and the advertising expert ? It is argued that the social cost of risk-bearing must be greater in a planned economy because wherever a wrong choice is made its effects are more widely spread, while individualism retains the saving grace of averages and random samples. But could the errors of a socialistic order well exceed those of capitalism as exemplified in the British stock exchange boom of 1928¹ or the orgy of foreign lending by America in 1927-28² ?

It might be argued that, nevertheless, a planned society would generate a psychological atmosphere in which it would be difficult

¹ See "The Results of the 1928 New Issue Boom," *ECONOMIC JOURNAL*, December, 1931. Also *Macmillan Report* (Cd. 3897/1931) § 386.

² See *League of Nations World Economic Survey*, 1931-32, pp. 39, 42.

to admit mistakes or to change fundamentals of a plan. In particular, an unwillingness to sacrifice sunken capital would lead to the suppression of the desire to experiment and innovate. This is the argument of the Professor Gregory of p. 12 of his article. But it is refuted by the Professor Gregory of p. 5, for on that page he objects against planning (at any rate against the partial planning of capitalist rationalisation) that it tends to push technical improvements further than economic calculus would indicate. Surely the truth is that both tendencies will exist: the purely administrative type of mind will favour routine and a static order, while the technical mind will delight in novelty for novelty's sake. An effective system of social cost-accounting should be capable of holding the balance between these two opposing tendencies. We must have recourse to the devices of Measurement and Publicity.

But how is the flexibility of the "irrational" price system to be reconciled with the formal rigidity of planning? According to Mises, Brutzkus, and others,¹ planning of itself involves the abandonment of the guides of price and market choice. A planned economy cannot price goods because it cannot permit free consumers' or producers' (workers') choice. This point I have dealt with elsewhere² and I believe it depends on the same unreal assumption of naturally exclusive alternatives as the argument just dealt with. On p. 6 of his article, Professor Gregory envisages the possibility of a socialist order different only in property relations from a capitalistic one. The system which I have in mind is a compromise between this planless collectivism and the boggy of cast-iron rigidity which Professor Gregory conjures up in order to attack. It is possible to devise an economic system which, though planned in its main outlines, makes use of the capitalist mechanism of price and cost (even including interest and an allowance for risk-bearing), and sets itself as its end the satisfaction of individuals' desires.

But suppose that, in spite of our devices for securing a flexible equilibrium within planned economy, society does rush to one or another of these extremes—either a slowing down of material progress or a misplaced zeal for technical improvements unrelated to economic welfare—what then? Even the stern critic of planning admits

¹L. von Mises, *Die Gemeinwirtschaft*. B. Brutzkus, *Die Lehren des Marxismus im Lichte der russischen Revolution*. G. Halm, *Ist der Sozialismus wirtschaftlich möglich?*

²"The Economic Basis of Socialism," *POLITICAL QUARTERLY*, September, December, 1930. "Price Formation in a Socialist Community," *ECONOMIC JOURNAL*, June, 1933.

(p. 14) that the standard of living need not necessarily *fall*: economic progress will be slower than it might have been under an alternative system. But may it not be possible to balance economic progress against other social ends—*e.g.*, equality of opportunity and liberty for the common man? After all, the principle of marginal equilibrium applies to marginal equilibrium itself. There is not an all-or-nothing choice between a planned economy, rigidly unchangeable and unchanging, on the one hand, and a perfectly flexible market economy, based on marginal equilibrium on the other. It is a question of adjusting the proportions of conscious planning and of formal, market-economic, freedom in order to maximise real social freedom. Some inequality, some rigidity, some irrationality, some lack of ideal symmetry and order, must perhaps be tolerated; but the resultant balance might conceivably produce a more satisfactory blend of order and freedom than that which we enjoy to-day.

University of Leeds.

H. D. DICKINSON

ECONOMIC TRENDS AND GOVERNMENT INTERFERENCE

A description of the transition from *laissez-faire* to a planned economy has become part of the stock-in-trade of every aspirant to political distinction during the past few years. Clear thinking as to what is meant by either *laissez-faire* or planning has, however, been conspicuously absent, and the result is that the National Government, which was returned two years ago with a blank cheque to do whatever might be necessary to avert a crisis, has continued and greatly accelerated the general post-War tendency to government interference with economic activity. There is no evidence to show that the ultimate objective is a planned economy or any other particular type of organisation. Rather it would seem that, under the pressure of events, the Government has felt compelled, without reference to any particular guiding principles, to take one step after another, with the object of protecting those industries and interests whose immediate plight was the most serious. Such action is of course quite justifiable if an industry's troubles are temporary, but, when they are occasioned by changes in industrial technique or the adjustments necessary to fit into a new type of world economy, any attempt to force back the hands of the clock, and artificially retain the position of equilibrium which had prevailed under quite different circumstances, must in the long run delay the process of emergence from the present state of chronic depression, whatever fleeting palliatives it may appear to bring to the interests to which help is given. There is to-day a very real danger that a progressive calcification of the economic tissue will postpone indefinitely all hope of recovery and of a return to prosperity.

The chief means by which the Government puts the brake on normal development is by the taxation of expanding sources of revenue. This is a policy which it is extremely easy to defend. The Government must obtain its revenue from somewhere. On the face of it there is much to be said for taking the line of least resistance and imposing the biggest burdens on those industries which are relatively prosperous, while at the same time lending a helping hand

to the unsuccessful. Taxes of this kind are as popular as taxes can be. They give little cause for anxiety to the Chancellor of the Exchequer as their yield usually tends to exceed the Budget estimate, while the industries which are burdened with them on the whole complain little, as, after all, they are still doing fairly well by comparison with the general run of industries. The effect on the community as a whole, and particularly on the level of employment, of placing an artificial handicap on the development of new industries receives scant attention. In addition to exercising its influence by means of changes in taxation, the Government is also to some extent pursuing the more direct policy of restricting by law the expansion of particular industries and activities whose threat to the established interests is too direct. Unfortunately, human nature being what it is, uninstructed public opinion is invariably opposed to any change and sides with the vested interests in their attempt to maintain the *status quo*. The man employed in a declining industry always fights harder to keep his job than the unemployed man will fight to be given a job in an expanding industry.

The general economic trends stand out plainly enough. Mass-production and rationalisation have reduced the cost of primary foodstuffs and raw materials and of the products of the so-called staple manufacturing industries. This is resulting in a permanent change in equilibrium and a permanently reduced demand for labour for these activities. In addition there is a process of decentralisation of industrial activity in the staple industries away from the older industrial centres. On the other hand, changes in social habits have caused an increased expenditure on the home and the amenities of the home ; on transport and travel ; on the services provided by retail distributors ; on sport, hobbies, entertainments, amusements, hotels and restaurants ; on soaps, beauty and toilet preparations of various kinds ; on newspapers, magazines and books ; on tobacco ; on prepared foods, dairy produce, poultry produce, fruit and vegetables ; and on cheap but smart clothes. There has also been a marked increase in the manufacture of machinery on account of the progressive mechanisation of the factory, the farm, the mine, the office and the home. The problem of employment can only be solved by encouraging the development of these new economic activities ; it is merely being aggravated by a policy of slowing down the process of adjustment. The most important feature of the present trend of popular habits and expenditure is the increasing social and economic importance of those forms of expenditure which

are normally met by locally organised self-contained economic enterprise, such as hotels and restaurants, and which involve little or no foreign trade. Whether it is desirable or not, conditions approaching economic autarchy, modified by barter-agreements between the industrial countries and those producing foodstuffs and raw materials, are becoming possible and may become inevitable, owing to the policy of economic nationalism which a growing proportion of the world's population appears to support.

The forces of reaction are exceptionally strongly entrenched in Great Britain, which, a century ago, was a pioneer in industrial and railway development, and has owed much of her commercial success in the past to abundant supplies of cheap coal and the stimulus given in consequence to factory industry, a coal-burning mercantile marine, and, of course, to the railways. There is thus a natural psychological tendency for many classes of Englishmen to look back with regret to the spacious days of mid-Victorian prosperity and to apply their energies to an attempt to re-establish the conditions which then prevailed. This accounts for much of the support given to the "Back to Coal" movement, for the obstinacy with which British shipbuilders continue to build coal-burning vessels when the rest of the world is turning more and more to oil for marine transport, for the extraordinary sympathy of the public with the difficulties of the railways, for the reluctance of the railways to embark on schemes of electrification and Diesel-electric traction, notwithstanding the progress being made in these directions abroad, and last, but by no means least, for the British housewife's predilection for the wasteful and unhygienic open-grate coal fire. This conservatism and tendency to look backwards instead of forwards is accentuated by the large amount of capital invested by British subjects, both at home and abroad, in the typical nineteenth-century industries, such as railways, and the political power of the shareholders in these industries is freely used to slow down, and, so far as possible, prevent the process of change and adjustment.

The typical British attitude to modern developments is perhaps not unnatural. Great Britain had enormous advantages in the nineteenth century, which she used to secure a dominant position in world railway development, in the investment of capital in undeveloped countries, in the mercantile marine, in the export trade and in the development of the steam engine. These advantages have now largely disappeared, and Great Britain's relative position in the typical twentieth century economic activities, the industries

dependent on the internal-combustion engine, on electricity and on a flair for catching the public's eye with consumption goods of modern smart design, is by no means so high. With these industries there is comparatively little in the "natural" advantages of one country over another, which were so marked with the nineteenth century industries, and hence comparatively little tendency to a division of labour by countries. The trade of the great manufacturing nations with one another is thus bound to decrease. The same does not necessarily apply to trade between the manufacturing countries with an export surplus of finished goods and the primary producing countries with an export surplus of foodstuffs and raw materials. Each is complementary to the other and the export outlets of the manufacturing country are not more important to it than is the market it provides to the producer of primary products. This trade seems destined to be organised, however, not on the basis of all the manufacturing countries of the world fighting for all the markets in all the primary producing countries and *vice versa*, but of each country coming to an agreement to buy a certain quota of a complementary country's exports, provided that the other country undertakes to buy goods to a similar value from it—in fact under conditions of international barter.

In no field is the unimaginativeness of official policy with regard to the making of necessary adjustments more clearly marked than in the field of transport. The railway system was constructed with special reference to the needs of the congested industrial areas which now form the black spots of the unemployment problem. The needs of the country towns were comparatively neglected. The post-war tendency has been for the industrial and population map of Great Britain to revert to its appearance before the onset of the industrial revolution, and this, combined with the facilities for easy transport opened up by the development and cheapening of the internal-combustion engine, and the undoubted latent unsatisfied craving for moving about, contributed to an enormous development of motor transport. The number of motor vehicles in use, excluding motor cycles, has increased from 575,823 in 1922, to 1,613,093 in 1932; the production of new vehicles by the manufacturers has increased from 73,000 in 1922 to 233,000 in 1932; exports have risen from 3,041 in 1922 to 40,178 in 1932, while imports have fallen over the same period from 22,352 to 3,072. The number of passengers carried by omnibuses now amounts to 5,344 millions a year, or over three times as many as are carried by the railways, including the

London "tubes." The total number of people employed in motor transport, motor manufacture, garages, and the repair of motor roads exceeds 1,000,000, the greater part of this being entirely new work, far outweighing any shrinkage which may have taken place in the work provided by the railways and horse-transport.

The attitude of the Government has, however, been persistently hostile to motor transport. The revenue raised from it by taxation has increased from £11,339,000 in 1922 to £36,795,000 in 1928 and £62,396,000 in 1932. Its resilience to trade depression has made it a special object of taxation in almost all countries. The cost of the roads has meanwhile only increased from £51,475,000 in 1922 to £66,373,000 in 1931 and has since fallen to a current level of about £52,000,000. Although for years a pretence was made that the only *raison d'être* for motor taxation was to finance road expenditure, and that any taxation in excess of this constituted an unjustifiable impost on a particular type of transport, even this position was abandoned by the Chancellor of the Exchequer in his last Budget Speech, so far as the petrol tax, which accounts for £34,000,000 out of a total motor taxation of £62,000,000, is concerned; while, as early as 1926, one-third of the yield of the vehicle duties on private cars and motor-cycles was ear-marked as sumptuary taxation. The tale is not yet complete, as the 1933 Finance Act provides for stiff increases in the taxation scale on heavy goods vehicles, which will mean a further increase of £1,750,000 in the total yield of motor taxation.

The Government is of course perfectly entitled to levy a special tax on transport as such, if a transport tax is considered desirable, but a tax levied on the new form but not on the old, is calculated merely to delay the necessary process of adjustment. Similarly there may be much to be said for a general system of sumptuary taxation, but, so long as such a system forms no part of Government policy, it is merely retrograde to levy it only on private cars and motor-cycles, while exempting horses used for pleasure, domestic servants and first-class railway travel. The hampering of the process of adjustment has, however, not been confined to the imposition of special taxation on road transport, but, since the Road Traffic Act of 1930, has extended to actual physical restriction of the development of the new industry. The Road Traffic Act placed the licensing of omnibuses and motor-coaches under the control of traffic commissioners appointed by the Minister of Transport, and specifically enjoined them to "eliminate unnecessary competition," whether

between rival omnibus concerns or between road and rail. The result was a sudden check to the natural growth of omnibus transport, which was mainly creating a new market hitherto untapped by the railways. The number of hackney carriages of over 8 seats increased from 40,118 in 1926 to 52,647 in 1930; the result of the traffic commissioners taking over in April, 1931, was a reduction to 46,936 in 1932, and the evidence goes to show that the reduction has continued since. The railways have made a practice of "objecting" before the traffic commissioners to the granting of many licences on the ground of "preventing wasteful competition," and in some cases have agreed to withdraw their objections if the road fares were raised to the railway level. The result is that many omnibus and coach operators are actually compelled to charge the travelling public more than they need or want to do. The Road and Rail Traffic Bill, which seems likely to find its place on the Statute Book without substantial alteration, will go further in extending the general principles of artificial restriction to the road haulage industry, which the Road Traffic Act applied to the passenger-carrying industry. It is noteworthy, as an instance of the Government's attitude to current economic problems, that the Bill only provides for the restriction of mechanically-propelled road transport used by the haulage industry. Horse transport will be left free to develop as far as it can, and will continue to be subsidised to the extent that it is entirely exempt from taxation.

The position of the coal trade is comparable in many ways with that of the railways. Instead of the energies of the directors of the coal industry being directed to discovering how fuels suited to present-day requirements can best be produced from coal, the tendency is rather for them to exert all the political pressure they can to hamper their rivals and thus postpone the day when raw coal will be used only as a material from which cleaner and more useful commodities can be manufactured. The Chancellor of the Exchequer, in his last Budget Speech, frankly admitted that, owing to the representations of the coal trade and other interested parties, he had decided to impose a tax of 1d. a gallon, or something over £1 per ton, on heavy oil, the tax being equivalent to a duty of from 33 to 50 per cent. The tax was imposed on all heavy oil, irrespective of whether it was in its particular use in competition with coal or not. It might be argued, of course, that such a step was necessary in the interests of economic autarchy, but such a policy would be very short-sighted in view of the credit balance accruing in this

country to the ship-building industry in building tankers and, consequently, indirectly to the steel industry, to the mercantile marine in manning the tankers, to the engineering industry in supplying oil-field equipment and pipe lines, and to the textile and other export industries supplying consumers' goods to the oil-producing countries. The trade in petroleum products is an excellent example of the type of trade between undeveloped raw material producing countries and the manufacturing nations which can and should continue, if necessary on a barter basis, as oil provides the fuel for so many of the new, and, notwithstanding official harassing, comparatively prosperous industries.

It is interesting to trace the effects of the taxation of heavy oil on the internal economy of Great Britain. In the first place it hits the Diesel engine makers through increasing the cost of transport, whether by Diesel lorries or Diesel barges on the canals and inland waterways, thereby helping the railways; secondly it falls with particular severity on the more up-to-date agriculturists who use kerosene for their tractors, incubators and agricultural machines generally, while also hitting their employees who largely depend on kerosene for lighting and cooking; thirdly it hits the whole development of domestic central heating amongst those classes who cannot afford to employ the labour necessary to look after a coal-fired boiler and thus severely contracts the growth of a new industry, the manufacture of central heating equipment; lastly it increases the costs of the numerous, mainly light, industries which have turned to oil because, only in that way, could they obtain at a reasonable price the conditions of cleanliness and exactly regulated heating necessary for their processes. It is also interesting and significant to notice that the movement for the production of oil from coal by hydrogenation comes from the comparatively youthful chemical industry, not the coal industry, and that large sections of the coal industry are inclined to be hostile as they want to force the public back to consuming raw coal.

The difficulty of the Government is that they are constantly being faced with the choice between maintaining short-term employment by assisting a declining industry to linger on at a higher scale of production than is justified by the circumstances, and encouraging the long-term employment which will be provided by the development of a new industry, which, however, is almost inevitably in competition to some extent with some vested interest. As the Government consists of politicians with an eye on short-term

popularity, rather than economists with an eye on world trends, the choice made is almost invariably the wrong one. Unfortunately, without a far-sighted policy of encouraging and even subsidising the right new industries and new economic activities, and, after losing the "staple industry" complex, assisting the declining industries to find their proper level with as little human suffering as possible, the probability of substantial progress being made towards the mitigation of the chronic trade depression and the solution of the unemployment problem is remote.

C. T. BRUNNER

REFLECTIONS ON SOME DIFFERENCES BETWEEN ECONOMISTS

I

THE present position of the world is characterised almost as much by differences between the counsels of economists as by differences between the policies of statesmen or between the tempers of peoples. In part, this is not unnatural : the economic systems of the world are suffering from a number of disorders which are so linked together that economists can be forgiven if they are confused between the malady and the complication, so that there is an almost inevitable tendency for different degrees of importance to be attached to different aspects of economic maladjustment. Even, however, were economists unanimous in their placing of emphasis, those who consider it their duty to make some practical contribution to recovery, would probably find considerable differences in their advocacy—again for an understandable reason. Economics is merely the study of behaviour resulting from certain stimuli, so that an appropriate aid to recovery is a function of the functional relationship between the stimulus and the behaviour. This, of course, must be interpreted in a wide sense : a local stimulus does not merely produce local reactions ; it has a tendency to produce reactions as widespread as the limits bounding the inter-relations of the economic system. A measure, therefore, designed to affect nationals must be expected to affect the peoples of other countries. Hence, appropriate action is not merely a function of the relationship between the stimulus and behaviour, but of a series of relationship and their indirect reactions. In times of depression, behaviour is to a large extent incalculable : one has to take account, for example, not only of the principle of substitution but of the possibility of panic ; one has to be aware of the resultant reactions not only on the actions of entrepreneurs but also on the policies of politicians. Whether this is economic research at all appears to be doubtful, though if it is not it seems clear that the field of economics is becoming increasingly circumscribed. It is unreasonable therefore to be surprised that economists differ in their advice to governments, or, even more, that some economists, aware of their ignorance of psycho-politico-economic analysis, refuse to leave their academic seclusion, and content themselves with pointing out the dangers or

the difficulties of any course of action that the less cautious suggest. Being an acute analytical economist is not the best of recommendations. A remedy that, from the normal economic standpoint, would be deemed most appropriate may be worse than valueless, because the reactions to be expected are not normal. The economics of curves and equations is not applicable because its data tend only to be apposite to one situation which the alteration investigated will change. On the other hand, a remedy that could be judged academically as economically unsound, may, in fact, be appropriate if it produces a desired popular reaction, and if it is politically acceptable. Thus the "New Deal" in the U.S. appears to the economist, neglecting other aspects, to be likely to result in self-frustration, but it is nevertheless possible that it will achieve what is hoped from it. It is wise to recognise that empiricism is the only criterion.

As a result of considerations of this kind one finds among economists widely disparate views on the most fundamental of present economic problems. Thus, on the question of appropriate monetary policy, one finds on the one hand, an advocacy of a policy of public "investment," on the grounds that there are limits to the deflationary strain that a society can stand; while, on the other, there exists advocacy of a policy of stabilisation, partly on the ground that it is a necessary prelude to international action, but also partly on the ground that inflation would be an added danger to the structure of the internal economy. On the question of fiscal policy, one finds support for tariffs on the ground that a radical re-organisation of economic activity is necessary, and can only be brought about by some kind of interference; while, again, one finds opposition on the belief that an effort to retain the old international economy might well be successful, and if so would certainly be worth making. To some, a measure of intimate economic control is viewed as inevitable in a world whose economic system has broken down; yet, to others, control of this kind is looked upon as an added danger, having calcifying effects in a world that needs adaptability. A policy of international investment is regarded, on the one hand, as being beneficial in a world that is exploiting but a small proportion of its abundant resources; but, on the other, it is regarded as extremely dangerous in a situation where nervousness and nationalism have made capital movement discontinuous and investment insecure. By some, wages would be urged upward to provide a basis for reflation; yet others would support their reduction to give confidence to entrepreneurs and to force remunerative investment. All

these questions lie at the basis of economic policy : they can be neglected only on the assumption that government does not necessitate their answer, or that, by indefinite deferment, they will answer themselves. Hence, such a divergence of views is both disquieting and symptomatic of the magnitude of the difficulties with which we are faced.

Economic analysis itself is capable of answering these questions in either of the ways indicated, so that the divergence of views is not an indictment of economic science, or even of economists *qua* economists : it may, of course, to one person, be an indictment of the political wisdom of some, and, to another, suggest an ignorance of psychology in others. However important these may be, they are personal matters ; and no economist who tries to be impartial has any special aptitude for making judgment. But in addition to these differences which can have no scientific equation, there do exist among economists fundamentally different readings of the economic situation of a changing world. In a world so bewildering, this is a sign of the assiduity with which economists are trying to understand the significance of the trends of economic life. There may, however, be some value in identifying some of the issues at stake.

II

First of all, let us turn our attention to monetary policy, which naturally divides itself into two aspects—the appropriate monetary policy for an economy considered as unique, and the appropriate monetary policy of an economy in relation to other economies.

On the first of these questions, economists may either regard an inflationary policy as being scientifically correct, or, apart from the practical implications of the policy, as being definitely ill-founded. The argument in favour of “ reflation ” is well known : it is based largely on the assumption that the lack of confidence is strangling consumers’ income with the result that a quasi-equilibrium has been established at a level of prices—relatively to the cost of labour and capital—that will allow the exploitation of only a part of the social resources. As a consequence, saving out of income, and investment out of saving are both largely reduced, with a consequent stagnation in the trades producing capital goods. Recovery can only come naturally when entrepreneurs producing consumption goods, influenced by the growth of more confidence as the depressant forces lose their power, take the risk of expanding production, and, unknowingly

to themselves, create the market for their products together with the conditions that make for rising prices. By itself, this process is inevitably slow : trial and error is needed. Some attempts will end in failure because income goods are not homogeneous, and set-backs, with partial over-production and increases in stocks, almost necessarily occur. Failures such as these may once more set in action for a time the forces of depression, so that recovery along these lines will take a form similar to the incoming tide. The waves will cover the beach apparently at random ; only the more confident will make progress and these will be followed by a recession. Only the most expert observer can tell which way the tide flows, and, if he is gambling on the result, probably his judgment is open to suspicion. Some economists deny that recovery actually can so take place. If one regards the action of human beings as functionally inter-dependent, it is difficult to explain the turn of the tide without making reference to the action of the banking system. But an assumption of such strictness is itself difficult to defend. As a buttress to this argument, it is pointed out that an alternative policy of income deflation will reduce the market for final products *pari passu* with the reduction in costs of production.

On the basis of this thesis, the reflationists point out that a lack of confidence is an insuperable barrier to normal recovery, and that a stimulation of the capital goods industries will at once foster confidence, hasten the progress of recovery, and allow industry to arrive at its normal position without the uncertainty, and delay, that would be experienced in its absence. It is inevitable that this argument should be popular ; it is closely linked with proposals for social reform—such as slum clearing—while it offers the attractive prospect of more work without a reduction in money incomes. This is in no sense whatever a condemnation of such proposals. All that is necessary to bear in mind is the attractiveness of policies that identify economically appropriate policy with ethically desirable conduct.

As a result, the views of economists who are opposed to such a policy are less widely known. These economists lay stress upon the disharmonies that result when saving falls short of investment, and see in this short-fall a relative scarcity of saving. This view is opposed to the former largely in its placing of emphasis, for, in that, the movement of investment relatively to saving is stressed. Booms result when investment is large ; depressions are caused when investment is small. Consequently, there tends to be advocated a policy that will

interfere with the volume of investment. The other policy is arrived at by arguments of this nature. Boom conditions emerge as a result of net savings being too slight to carry through the process of investment that other circumstances dictate. This may be so for a variety of reasons. Capitalisation may be planned on a more grandiose scale than the community can afford. At the crest of the boom, most economists, I imagine, would agree that this is true : a large proportion of capital production during that period must be wasted, either by being scrapped altogether, because some processes must be abandoned, or because capital must be put to uses other than those for which it was designed. To this extent, there is a margin of over-investment from every point of view. But the deficiency in saving does not all arise in this manner. The margin of saving is cut into by extra-normal expenditure which is not a feature of the society in equilibrium. It may be assumed that this expenditure is at once the cause and the effect of the boom. Thus instalment purchases of articles which strictly cannot be afforded, together with purchases made in consideration of ephemeral capital gains, offset a substantial proportion of the saving out of income which the society would make in the long period. Hence, one arrives at the tenable conclusion that savings are too small, rather than that investment is too great. When the boom breaks, investment falls and with it savings, so that there tends to be a fall in the rate of interest once panic is allayed. But the saving that the society is capable of making is not in itself sufficient for a time to bring down the rate of interest to a level low enough to produce equilibrium conditions. Hence, there exists one reason why saving should be encouraged, and why, therefore, the distribution of the national income should be altered to allow at least a *normal* proportion of saving out of income. To save less than this would, perhaps, maintain a greater appearance of prosperity, but it would at the same time make likely a prolongation of the course of depression. But this is not the only reason why emphasis should be placed on the need for saving. During the depression, considerable inroads must have been made upon the capital equipment of the community. Plant must have fallen into disrepair ; replacements must have been postponed ; the search for economies must have resulted in the finding of some of doubtful value. In the preceding boom some projects must have partly materialised, and need a quantum of capital to complete. The value of some of this plant will, of course, have to be written down, but it may be good economy to salvage it at the cost of additional capital

expenditure, for, thereby, a net increment of value may be obtained. Moreover, during depressions a portion of the apparent savings of society will be devoted to paying for the extravagance of the preceding period, thereby reducing outstanding debts and building up the liquidity of financial positions. Saving, therefore, needs to be encouraged. If this is done sufficiently, investment will begin anew and induce an increase in income, while this process can be further encouraged by a reduction of costs that will stimulate confidence and promote the re-employment of labour it was previously unprofitable to use.

A further argument needs consideration here, although it is directed less specifically in support of the immediately foregoing than in contradiction of the advocates of reflation. It is pointed out that beneath the monetary veil covering boom and depression, there exist real alterations and currents which, in part, monetary influences call into being. More than that, it is asserted that the social significance of the monetary influences lies largely in these real consequences. Thus boom conditions are regarded as an over expansion of capitalistic production, while depression is seen as the reaction—the attempt of a society to recoil from a capitalisation it will not afford. Hence, in depression, the demand for consumption goods is relatively maintained in an attempt to recast the mould of economic activities to serve the normal demands of consumers. An interference with this process by an artificial expansion of investment may, in effect, result in additional capitalistic equipment which is economically unwanted, and thus cause a further revulsion when that investment has ceased. To put this argument in another form, in the normal economic conditions of society, a certain capitalisation of industry is appropriate. In order to obtain a greater future quantum of goods, the society is willing to deny itself of a certain amount of present welfare. It will use certain instruments of production, because they are appropriate to the processes of production it decides it can afford to use, but it will reject certain instruments because their use implies a less quantum of present satisfaction than is deemed appropriate to the standard of living. As a consequence, to interfere satisfactorily with the capitalisation of the structure, it is necessary to be aware of the normal structure to which the society is trying to return from its excursion into super-capitalisation. If a policy of public investment keeps this in mind, and helps this return by building up the capital that will be required, then, perhaps, this objection can be

abandoned. But, if the policy attempts investment on the basis of another criterion—one, perhaps, which is ethically more desirable, though it is of doubtful value to draw a fine line between ethics and economics—and attempts to create processes which will ultimately be rejected, and create employment which ultimately must be abandoned, then the policy will not be appropriate to the situation, but merely add difficulties to a situation from which depression is the normal way out.

Arguments such as these which imply that there is no short way out of depression are never likely to be popular. But this should not be allowed to upset our judgment, as is so often the case. To some, such a case is not worthy of examination on its merits, because it is antithetical to what they regard as desirable and expedient, but, equally, there are those who are attracted to a remedy proportionately to the difficulty of its application, and who see virtue in social penance. All that it is necessary to point out here is that two diametrically opposed views exist on a problem for which sooner or later we shall have to find a solution.

III

There is no less disagreement on the question of appropriate external monetary policy. There are, of course, two main schools of thought. The first, who, naturally enough, are inclined to be deflationists on the previous question, lean towards the adoption of a monetary system which is managed largely in the interests of the stability of the internal situation, and which allows a considerable degree of elasticity in the monetary relations between the domestic and foreign systems. The second, who tend not to be so unanimous in their judgment on the former question, are inclined to lay stress on the value of fixed external monetary relationships, on the benefits which have been obtained in the past from international economic co-operation (or competition), and on the very considerable dangers which must attend the carrying out of the alternative policy.

Many of the arguments which support the former attitude are well known, and it is realised by most advocates that the successful carrying out of the policy would entail a measure of economic isolation. It is the arguments and counter-arguments which bear directly on the advisability of economic isolation that need consideration here. It is fairly easy to present the case for autarchy in a way that disposes one to think it reasonable. Economic progress has been a succession of phases, in which economic internationalism

may be based on as ephemeral foundations as the rest. Disparate degrees of economic progress in conjunction with localisation that man has made no longer necessary may together banish the *need* for trade between countries, without causing any loss to be sustained from its disappearance. If this is so, then the emphasis which has been placed upon the conditions that make international trade possible will need adjusting, and it will be unreasonable to act in the way that was appropriate when merely domestic considerations were relatively less important. In addition to this factor, however, it may be alleged that the dangers of international trade are increasing. If the benefits from international trade are to be used in support of arguments for the maintenance of conditions that make trade possible, then, clearly, one must take account of the disadvantages of those conditions in conjunction with trade as it exists. Given a monetary policy aimed at maintaining exchange stability, *i.e.*, a policy most appropriate to economic internationalism, every instability of foreign trade is reflected in an instability of domestic economic conditions. If foreign trade is becoming less stable, and especially if, in addition, it is becoming less important, there is a strong case for a flexible external monetary policy. There are certain *a priori* arguments that incline one to believe that this is the case. In the first place, demand is becoming increasingly unstable, so that the channels of international trade become more easily deflected from a particular country. In the second place, as technical efficiency is becoming increasingly a function of skill and less a function of environment, there is reason to expect that efficiency will be subject to more rapid change. In the third place, physical efficiencies in an increasing number of lines of production are becoming more and more equal in different countries. When trade took place largely as exchange of manufacturers for tropical or semi-tropical produce, there existed large differences in the comparative advantage of producing international goods. As a result, minor alterations in the efficiencies with which different commodities were produced had only minor effects on the channels of trade or even on the volume. In effect, there existed a wide dispersion around the mean of comparative advantages. To-day, the position appears to be different. The physical efficiencies of making different international goods are much more nearly identical; they cluster, as it were, around the mean level. A slight alteration of efficiency may necessitate a country importing what it previously exported—or, at any rate, this would be the effect if long period results could be

experienced in the short run—and, in any case, there tend to take place dislocations of the existing channels of trade, and large fluctuations in the volume of goods passing along any one. Apart from any effect resulting from purely internal causes, and these have been noted so often that there is no reason to doubt their existence, the effect of this new trend may be aggravated in industrialised countries. In trade carried on between two similarly situated industrial countries, an increased efficiency in one industry in *A* would tend to result in an increased "money-efficiency" in all the industries of *B*, or a decreased "money-efficiency" in *A* industries. But if we are concerned with the relation between *B* and *Z*, a country of low general efficiency, which is becoming increasingly efficient in a small number of industries that employ only a small proportion of its resources, then the position is quite different. First, a slight increase in relative efficiency of an industry of *Z* will effect a very small reduction in the relative "money-efficiencies" of those *Z* industries concerned in international trade, for the reduction will be spread over industries which are almost purely domestic. Thus, if a country employs a large proportion of its resources in production for the domestic market, as do many countries which are as yet not highly industrialised and which have low standards of life, there exists, as it were, a shock absorber of monetary adjustments. The effect of monetary adjustment is felt but little in the export trades, for these are comparatively unimportant, while in western countries their effect is large, for a small change in a large number of industries is large in the aggregate. In addition, in such countries, forces tending to alter standards of life in all the economic sections of society tend to be sluggish in action. As a consequence of these two forces, while developing countries are in the process of economic internationalisation, increases in their efficiencies in the manufacturing arts tend to bring about considerable disruptions of the course of trade. If, for any reason, they need a greater credit in the balance of payments—to liquidate liabilities, to build up reserves, or to pay interest or repay debts—then the adjustment on the part of more industrialised countries is made more difficult. The important point, however, is that in any case there tends to become necessary a greater monetary readjustment than would be necessary were both countries similar.

On the basis of these arguments, the conclusion emerges that rigid external monetary links between countries, will necessitate, first, more frequent alterations in money incomes, and, secondly, greater

alterations in money incomes ; while, almost as a corollary, there will become necessary more fluidity in the disposition of resources between industries. When these considerations are placed side by side with the greater international mobility of money resources, the greater cost of moving factors of production from one industry to another, the increased difficulty of altering money remunerations, and the, perhaps greater, instability of internal monetary equilibrium, they gain considerably in force.

There are, however, economic arguments which can be levelled against this view. In the first place, it is not known how important are the above-mentioned changes. Stated in the form of sweeping generalisations they may assume an importance which their actual content does not justify. But besides criticisms of this negative kind, there exist others of a more positive nature.

To some, the chief appeal of a monetary policy that aims at stability in external relations is the definitive character of the criterion used to judge its efficacy. A central bank managing a monetary system under a gold standard *régime* succeeds (or fails) according as it influences (or fails to influence) the domestic system to conform to the requirements of the international system. A central bank managing the monetary system to maintain internal stability has a task of quite a different kind. Stability is a concept which eludes definition, so that there is no obvious criterion against which the success of the policy can be compared. One is able to recognise a complete failure, but to recognise a slight deviation from stability that will, in time, be transmuted into a complete failure is a task of no little difficulty. To sacrifice the benefits from international trade in order to achieve internal stability may be a wise policy if, in fact, internal stability is achieved, but its wisdom is immediately called into question if achievement becomes uncertain. Even if one takes no account of the possible failure of this policy which might arise from this factor of uncertainty, the advantages to be derived appear to depend upon two factors which are perhaps not always favourable. In the first place, the instability which is apt to be regarded as a function of monetary policy—for example, the instability associated with cyclical fluctuations—may in part only reflect itself in monetary conditions, and might continue to do so were the objective of monetary policy changed. There is no doubt that cyclical fluctuations are complex, and until we can confidently point to their causes it is unwise to assume that the removal of one would be followed by such beneficial results. A long period change in

the structure of economic activities—such as might result from an alteration in the rate of saving or along the lines of investment—may take place through a convulsion of all the activities of a society. That these convulsions may be mitigated by the appropriate monetary policy is a less powerful argument for monetary experiment than would be their disappearance. Secondly, the instability that is induced from the operation of external forces may arrive along three channels. It may be brought about as a result of domestic central banking policy; it may result from alterations in international demand and in international investment; it may in part come through psychological reactions to the above forces. It is probably important to know how far the third is dependent upon the first, and how far upon the second, for upon that division will depend the benefit that will result from a new monetary policy. But, in any event, it is too much to expect that changes of this nature will not involve secondary reactions that are similar in kind, though, perhaps, different in degree, to the broad alterations in demand and supply that are visualised in the monetary theory of the trade cycle.

What must be expected from such a monetary policy must obviously depend upon the instruments with which the central bank is to be endowed, and, equally obviously, the more powerful are the instruments the greater will be the probability of achieving stability. But, at the same time, the more interference is necessary to achieve stability in economic life the greater is there need to be certain that interference is appropriate. So that it would seem that the danger of this policy increases *pari passu* with the benefits to be expected.

IV

Amidst the uncertainties of a world situation, in which it becomes increasingly difficult to imagine the international repercussion of any national action, and in which the ultimate results of economic interference become a matter of chance there still remain disagreements of a purely economic character. In a large measure this is due to the difficulty of measuring the results of economic forces—that is due to a disability under which the economist often works—but there still remain disagreements on points of analysis. These scientific disagreements must remain difficult to clear away so long as a particular conclusion remains identified with a belief in its appropriateness or a conviction of its merit when judged against a non-economic standard.

JACK STAFFORD

THE ECONOMIC NATURE OF PUBLIC UTILITIES

THE first problem in the study of the economic nature of public utilities is one of definition : what does the economist understand by a " public utility ? " As generally used, the term is vague, and it would appear difficult either to state with complete precision the economic characteristics of public utilities, or to demark exactly the boundaries of the public utility field.

The problem may be approached by attempting a division of economic activities into three groups.

The predominant group comprehends all those activities known collectively as private enterprise. In response to freely expressed demands for their products, individuals or groups of individuals, carry on enterprises, expressed under conditions of free competition. This is the sphere of " demand and supply " theory : the effect of the action of the principle of substitution is that the price of goods and services supplied always tends to equal their cost of production—that is, the supply prices of the factors employed—and that changes in demand are quickly reflected in change in supply, as fluid factors move into employment.

Secondly, there are those activities carried on by the state, not in response to freely expressed effective demands—a purist would deny that they are economic activities in any real sense—but where the canon of appropriateness supplied by an effective price offer is replaced by some conception of " necessity " or peculiar " desirability " of the product in the minds of members of the community. The distinction might be made between a " desirability " to the individual which is not related to a price offer, as in the provision of education, and an advantage to the community for which no effective price offer from individuals would be forthcoming, as in the maintenance of government. The group would also include those activities which Adam Smith indicated as the proper economic sphere of the state, namely, the conduct of enterprises whose return is so distant in time that no individual or group of individuals will undertake them.

Between the spheres of private enterprise and state enterprise is that of public utilities. Like the activities of private enterprise,

they are carried on in response to freely expressed effective demands, but not under conditions of free competition. Like state enterprise, they have the element of "necessity" or peculiar "desirability," but differ from normal state enterprise in that they meet freely expressed effective demands. The distinguishing characteristics of public utilities are the two elements of "necessity" and local monopoly.

Mr. Hawtrey defines public utilities as "services in which a tendency to a local monopoly necessitates the intervention of a public authority to protect the interest of the consumer." This definition, ignoring the element of "necessity," would appear to include all services in which there tends to be a local monopoly; it also specifically assumes that the regulation to which a public utility is subject will necessarily be in the interest of the consumer.

One might provisionally define public utilities as "economic activities, peculiarly affected with a public interest, in which there is a tendency to a local monopoly, and which are subject to some measure of control by public authority in their economic relations with consumers." The merit of this definition is that it focuses attention on the two elements of "necessity" and local monopoly. Any study of the economic nature of public utilities must treat primarily of these two characteristics.

It is well to recognise that economic theory has little to say about the element of "necessity." In the definition given, the phrase "peculiarly affected with a public interest" might be regarded as merely question-begging, and it might be argued that an enterprise either is, or is not, "affected with a public interest" according as a freely expressed effective demand is, or is not, forthcoming for its products. But unless this "necessity" element be admitted, it would seem impossible to demark the field of public utilities. Both elements of necessity and monopoly are required. Mere local monopoly *per se* would not bring an enterprise within the sphere of public utilities: an entrepreneur might, for example, secure the only practicable site in a locality for an open-air swimming bath, but the absence of direct competition would not itself bring the enterprise within the range of public utilities. If he controlled the only available supply of drinking water, however, his enterprise, as a public utility, would require regulation by authority: clearly there is here an element of "necessity."

From the economist's point of view, the question of public utilities is more interesting when attention is transferred to their

other characteristic of local monopoly. The basis of the local monopoly of a public utility may be purely physical in nature. For example, an enterprise might secure the only available supply of drinking water in a locality. It would be impracticable to allow two concerns to run independent and competing tramway services, if each laid its own permanent way in the same streets. In the early days of the Metropolitan Gas supply there were numerous competing undertakings, until finally the sheer physical impracticability of different concerns having their own sets of mains laid together under the same thoroughfares led to a division of territory. Over a wide range of public utilities, the essential factor in local monopoly is physical.

The physical element, however, is not necessarily the primary factor conditioning the local monopoly of a public utility. The primary factor may be economic, although this might only become clear on going behind the legal monopoly conferred on a public utility undertaking. It is notable that among those economic activities which are usually regarded as public utilities—lighting, transportation, telephones, etc.—a large amount of capital equipment is required : in such undertakings overhead costs tend to be high as compared with specific costs. The significance of this in relation to local monopoly is twofold. In the first place, the very need to sink resources on a large scale in fixed capital is likely in itself to deter competition. It may be in some cases that entrepreneurs would not be willing to crystallise their resources in public utility undertakings without their being granted a legal monopoly. The second relation of fixed capital to monopoly is more interesting. Once capital is crystallised in any line of production it will remain there for the rest of its working life : the supply of fixed capital is one-directional. The remuneration which a piece of capital equipment earns may sink to zero, without reducing the supply of existing equipment. This economic theory recognises—it is regarded as a "short-period" effect ; in the "long period" remuneration to capital must approximate to the "normal." But the actual economic world is a world of short periods, a world in which capital equipment tends to have a long life relative to changes in demand. This means that competition among enterprises which utilise a large proportion of their resources in the shape of fixed capital—that is, whose costs are predominantly overhead charges—is incompatible with conditions of equilibrium. It is a point familiarised by studies on the economics of railway transportation. The competing enterprises

tend to engage in "cut throat" competition; reducing rates in the hope of stealing their competitors' traffic, and earning some small margin over specific costs towards their capital charges. When the return to capital is reduced to the region of zero, capital equipment will not be replaced as it wears out, and the competitors will tend slowly to sink into ruin. This is not a position peculiar to railway transportation, nor, indeed, to those activities which come within the field of public utilities. Over a very wide area in the economic system to-day the position indicated obtains, and it is well to qualify substantially the economics of the long period by remembering that the conception of capital factors freely moving about the economic system, in response to the offer of higher remuneration, is purely one of economic theory.

In the actual world, a change in demand is likely to produce "surplus capacity" rather than a flow of factors of production. The same influence lies behind the modern widespread tendency to eliminate, or restrict, competition in many spheres of economic activity by means of agreements and associations, or by amalgamations. The greater the importance of fixed capital and overhead costs, the less consistent with economic harmony does free competition become. In so far, therefore, as the characteristic public utility undertakings employ an abnormally large proportion of their resources in fixed capital forms, competition is less practicable among them than among the general range of enterprises. In short, the basis of the public utility undertakings local monopoly may be purely economic.

But there are other issues raised by this problem of fixed capital in public utilities. In so far as a large proportion of the costs of public utility undertakings are overhead expenses, in different degrees independent of the actual output of the undertaking, then any conception of a simple "cost per unit" of the product is artificial. At some points in the output of the undertaking, marginal cost per unit may be infinitesimal; average cost per unit is likely to change with every variation in size of output. But economic theory postulates for competitive equilibrium a point at which marginal and average costs are equal. In an undertaking where overhead costs bulk large, such coincidence is likely to be fitful and socially expensive.

In public utilities, therefore, one cannot conceive of a simple specific cost per unit of output. Nor is there necessarily a simple corresponding price per unit of output. The product of public utility undertakings is, in general, non-transferable: the buyer of

the product is not free to re-sell it to others ; buyers and consumers are, in general, identical in public utilities. Given monopoly, this means that price discrimination as between different buyers is feasible. Price per unit to *A* is not necessarily the same as price per unit to *B*, as it must be under conditions of free competition. Not merely is price discrimination possible : the economic structure of a public utility undertaking may require for its successful operation that price per unit differ to different consumers. There may be different grounds for such discrimination. Primarily, the existence of a large body of overhead costs establishes a basis for discrimination. It is a point which has been developed in connection with railway economics : wherever a consumer can be supplied at rates which more than cover the prime costs of supplying him—*i.e.* where the price paid would contribute something towards overhead costs which would have to be met whether he were supplied or not—the demand may be met with advantage to the concern, and to the other consumers, although they may be paying a higher price per unit. This is a position which requires careful handling : it could easily be productive of injustices as between individual consumers, as one, by harder bargaining, shouldered a greater weight of overhead costs on to other consumers who received a supply of the product under similar conditions.

The second ground for price discrimination requires some examination of the nature of the product of public utility undertakings. Mr. Hawtrey's definition, quoted above, tacitly assumes that "public utilities" are "services." Though some attempt has been made to differentiate between "product" and "service" utilities, the assumption that public utilities are services would appear to be generally valid. What a gas company supplies is not essentially x therms of gas, but the service of being ready to supply gas at the time required, and in the quantities required ; a telephone company supplies not essentially occasional communication with other people, but the service of keeping in readiness telephone lines and exchange plant to be available as the subscriber requires their use. The significance of this to the present issue, is that a simple uniform charge per therm or per call might be a very inequitable method of charging for the service supplied.

Lack of discrimination, in fact, might be the worst form of discrimination in such cases ; the overhead costs of the undertaking would tend to be loaded heavily on to the large consumer, and the small consumer would be getting his service at an uneconomic rate.

In the third place, it is necessary to focus attention on the question of peak and off-peak demand. The plant of a public utility undertaking must be constructed on such a scale as to meet the maximum potential demand at any time for the product: all demands on peak, therefore, must be held to contribute to the capital expenditure. But this is not true of demands taken off-peak, because the plant is there to meet the peak demand in any case. Whatever is charged against off-peak consumers above prime costs may be regarded as contribution towards the overheads for which the peak demand is primarily responsible. It may be desirable therefore, to take off-peak demands at lower rates than demands made on the peak.

All these bases of price discrimination are reflected in the rating systems in use among public utilities. The first is seen in the granting of special rates to individual consumers in special contracts, and in the charging of low rates for particular uses, in which the standard charge could not be borne. The second lies behind the institution of the two part tariff—now general in electricity supply, and coming into use among gas undertakings—under which the consumer is charged on the basis of his potential maximum demand for gas or electricity, as well as on his actual consumption. The peak question is shown clearest in the charges made for telephone calls, which vary greatly as between different times of day—as between the peak and the quiet hours.

It remains necessary to glance at the regulation to which public utility undertakings are subjected.

The purpose of this regulation has undoubtedly been, in most cases, to protect the consumer against exploitation of the local monopoly. In the Act or Order under which it obtained its powers, a public utility undertaking would have maximum prices specified—although in some cases the machinery of regulation was more elaborate than that. But is it correct to assume that this regulation is always introduced for the benefit of the consumer? Its purpose may be not to protect the consumer against monopoly exploitation, but to safeguard the producer against the possible development of ruinous competition—a possibility which, as is stressed above, is associated with the economic factor in local monopoly. This question of the interest in which the regulation is conceived would appear to be very relevant in any study of the control of road transport which is now in force.

PHILIP CHANTLER

REVIEWS

This Money Business. By BARNARD ELLINGER. (P. S. King. pp. 138. 6s.)

IN the words used on the first page, the object of this book is "to describe the machinery of banking and finance and to show how the machine works" while "the evidence heard by the Macmillan Committee . . . has been largely drawn upon in an attempt to describe the machine so that it may be understood even by readers who have no previous knowledge of the subject." In our opinion, Mr. Ellinger has been so successful in achieving his object that he has provided reading which, in conjunction with a sound guide to the theory of money, will provide an extremely useful introduction to the student of these kindred subjects. One of the many good features of this work is the happy manner in which the reader is brought to realise the inter-relation between the monetary system and the depression, as a result of the understanding he should obtain from Mr. Ellinger of the normal operation of the machinery described. For this reason, *This Money Business* will be found a most stimulating guide by the student who is eager to assess the significance of monetary phenomena, but, for those who take the pleasure of learning more sadly, Mr. Ellinger's confident use of unfamiliar notions may be difficult to follow : which is only to say that it is difficult to write in 138 pages an introduction to banking for readers who are presumed to have no previous knowledge of the subject.

Beginning with a discussion of the gold standard, the author proceeds to explain the mechanism of financing trade by bills, by new issues and through the banking system. With this as a background, he shows how and why, under different circumstances, the Bank of England controls these operations, paying especial attention to the relationship obtaining between the central and the member banks. Finally, the intricacy of the mechanism and its lack of efficiency are discussed, while a chapter is devoted to outlining the conditions needing to be observed for the smooth working of the international gold standard. This method of treatment appears to be apt to the author's purpose, while we think it a decided advantage

that he has resisted the temptation to do more than suggest the relations of this subject to the co-ordinate subjects of exchange between communities and the pure theory of money.

The student will be grateful for the provision of an index.

J.S.

Central Banks. By Sir CECIL H. KISCH and W. A. ELKIN. Fourth Edition. 1932. (Macmillan. pp. vi. + 473. 18s.)

IN its fourth edition, this work has been expanded by the inclusion of a chapter on "Central Banks and the Crisis." In this new part of the work the authors analyse the relation between the central banks and the crisis from the standpoint adopted in previous editions: that is, they are concerned with the failure to operate the international gold standard in a manner congruent with the teachings of classical theory. Thus, they say, "To-day it is impossible to strike at the root of the trade stagnation and wide-spread depreciation by any local measures; international co-operation is the first requisite" (p. 174). "But though the Central Banks have in certain directions been able to act as buttresses, it must be confessed that in the international sphere they have failed to do as much as was possible owing to the lack of adequate co-operation" (p. 176). "The international gold standard was not devised for such perverted use as the figures cited indicate . . ." (p. 173). The argument of this chapter is amply illustrated by figures of gold holdings, reserve proportions, index numbers and bank rates, by details of "full" gold standard countries, "artificially supported" exchanges and departures from the international standard. As such, the new portion in itself has the qualities of a valuable work for reference.

As a whole the work remains unequalled for the student of central banking: it is devoutly to be hoped that its future value will not become largely historical.

Appendix I, containing the charters of the Banks of Issue, has been brought up to date, while the text of the Gold Standard (Amendment) Act, 1931, has been included in Appendix II.

Purchasing Power and Trade Depression: a critique of under-consumption theories. By E. F. M. DURBIN. (Jonathan Cape. 1933. 6s.)

THIS book, on a difficult subject, is written with a clarity of exposition and reasoning which should make it acceptable to a

wide circle of readers. The book is divided into two parts. In the first part Mr. Durbin analyses the views of the under-consumption theorists and easily succeeds in exposing the weaknesses of those which contend that between money incomes and money costs there must necessarily be a large disparity. For the views of the more cogent of these theorists he has a somewhat greater respect. Briefly his position here is to show that, given constant rates of saving, of invention, and consequently of interest, with money costs and money prices falling in correct proportion to the increasing productivity of capital, there is no reason why equilibrium conditions should not be maintained. He allows, however, that, in practice this constancy of rates is not maintained, in particular, if the rate of saving becomes too great, general depression may ensue. It is thus that Mr. Durbin considers there may be something of value in the views of under-consumption theorists in relation to the problem of the trade cycle.

This idea of a general depression due to an increase in the rate of saving is then carried into Part II. of the book, most of which is taken up with a consideration of the views of Mr. Keynes and Dr. Hayek on the consequences of saving. While he considers that the idea is not inconsistent with the views of Mr. Keynes, he finds difficulty in reconciling it with the views of Dr. Hayek, and thereupon offers a tentative criticism of the latter. This is not to imply that Mr. Durbin thinks that the large problem of the trade cycle in all its phases can be explained in the light of the idea. It is rather that he regards the idea as important in suggesting how general depression might be caused by excessive saving. No doubt, under the conditions laid down by Mr. Durbin, there may be something in his idea, but are we justified in assuming that saving—a word with which we might very well dispense in this connection—must involve the divergences indicated in the footnote, p. 97? Would it not tend to clarity if, when thinking of the circulation of money, saving were always taken to imply investing, or better to confine ourselves to the terms spending : expenditure on final commodities and services ; investing : money expended in return for something which to the expender is not a final commodity or service ; and withholding : money completely withheld from circulation ?

When Mr. Durbin comes to propound an explanation of the trade cycle he does so by a combination of the views of Mr. Keynes, Dr. Hayek, and Mr. Hawtrey with some additions and interpretations

of his own. In the result, the explanation is not encouraging to those who believe that the cause of the trade cycle is to be found in a deficiency of purchasing power and its remedy in an increase. In Mr. Durbin's explanation the cause is a disequilibrium of the production system which predisposes it to fluctuations. This disequilibrium is seen in the capital producing industries being larger than past voluntary saving is accountable for and larger than the current volume of voluntary saving will maintain. Why these industries have attained their size is because of successive inflations. The solution of the problem, as Mr. Durbin sees it, lies in one of two directions. Either the volume of voluntary saving must be increased, which involves that income must be re-distributed in favour of the richer members of the community, for they are likely to save a larger proportion, or the capital producing industries must be reduced to an appropriate size and maintained at the size which voluntary saving will allow. By either of these means he considers that something like stability might be attained. Holding these views Mr. Durbin is consistent in his emphatic rejection of inflation as a satisfactory method of escape from depression like the present. While inflation might effect a temporary improvement his contention is that the inevitable result would be a reaction into another depression.

Evidently, this analysis and these conclusions will not be accepted by everyone at the present time, but there can be no doubt that Mr. Durbin has written an interesting book which leaves him with much scope for the development of his thought on its subject. Perhaps, if he has the opportunity of issuing a revised edition, he will pay attention to the numerous misprints the book contains, some of which, one suspects, are due to an illegible MS. and to a hasty reading of proofs.

G.W.D.

Democracy, Debts, and Disarmament. By WALTON NEWBOLD.
(Methuen. 1933. 8s. 6d.)

ON personal grounds this book must be of interest to many who have known its author since his student days. Those with whom he has kept in touch since that time have known of his intention to write a book, or a series of books, which would embody the results of his researches into the origins and growth of the modern economic systems, national and international. In this book his original object

was to present the principal causes of the development of the world crisis, but the prolongation of the crisis has impelled him to write as for a quarter of a century he has "been continuously getting ready to write in the hour of supreme crisis to which sooner or later it has been my growing conviction that capitalism must come."

That Mr. Newbold has written an exciting book goes without saying. Always he has had the characteristics of the detective of fiction who sees in every occurrence a link in some sinister plot. This is only to suggest that, in Mr. Newbold, these characteristics are strongly developed, for every researcher must possess them in some degree whatever the object of his research. In Mr. Newbold's case these characteristics have led him to investigate sources of information, make enquiries, and observe developments in many countries, and thus to present in a striking way the origins and the operation of the forces which, in his view, have determined the structure of the modern economic world in its larger industrial and financial aspects. As he informs us, his outlook is that of an historical materialist for whom ideas are seldom so potent as material interest and, as might be expected, the economic world, as he sees it, is not exactly the world of order contemplated by the scientific theoretical economist. In this world "Economics may be a matter of mathematical precision when you argue out a point in Cambridge or map a graph in the London School of Economics, but when personalities like the late Sir Ernest Cassel and King Edward took a hand in them the results were liable to be both picturesque and colourful. Loan contracts and railway concessions, orders for battleships and the scaling down of debt charges when the government does business with the nation's armourers are much less drab affairs than the professors would have their students believe. Somewhere between Pigou and Max Pemberton you will arrive at the truth."

Altogether the book contains fifteen chapters and an epilogue. In the first three chapters Mr. Newbold outlines the developments in finance and currency from the sixteenth century, which he considers we ought to have in mind to appreciate the position in 1914. The other chapters are concerned with the post-war situation and with the interacting policies of Great Britain, France, Germany, Russia, the United States, and Japan. For the policy of Great Britain, especially during the period of the Labour Governments, Mr. Newbold has little sympathy, largely it would appear because of his considerable respect for the policy of France. Russia, of course, occupies a prominent place, the chapter in which he discusses Trotzky *versus*

Leninism being of particular interest. Mr. Newbold uses a large canvas and one imagines that others, as well informed as himself, would, according to their point of view, paint a somewhat different picture from that which he presents, but everyone must know that, whoever painted it, it could not be a pleasing one. His aim is to reveal the process of dissolution of the pre-war economic system. As regards the future his conclusion is that "Within the capitalist organisation the *impasse* must remain complete. To seek an escape from it by a retreat from heavy industry and mechanisation is a counsel either of ignorance or of despair. The technique of tool and machine has ordained that society, unless it is to suffer shipwreck, must not go back from finance capitalism to paternal property, but forward to the planned economy of collectivism."

However reluctant one may be to accept the views which Mr. Newbold sets forth and the conclusions he reaches, his book cannot be read at the present time without a feeling that much has been learned from it.

G.W.D.

The Theory of Unemployment. By A. C. PIGOU. (Macmillan. 1933. 15s.)

THE appearance of a new book by Professor Pigou is always an important event. As an analytical economist he is in a class by himself. It is not a disparagement of other economists to say that his usual starting point is that at which most of them leave off in the belief that nothing is to be gained by proceeding further. In this book he addresses himself to students of economics who he considers ought to be conversant with the processes of mathematical analysis. And, indeed, if they are not thus conversant, they will have to skip considerable parts of the book but, even so, they will not find insuperable difficulty in following the lines of argument, especially if they make good use of the analytical table of contents while reading the text.

In the most exact sense the title of the book indicates its contents. They consist of a strictly theoretical treatment of the problem of unemployment in a system bounded by a compulsory regulative framework, and within which monopoly control may be sought, but whose basis is free enterprise. Such a system is not one in which the operative forces work out their results instantaneously and

without limit. It is a system of stresses and strains, this against that, that against the other, but one in which the actual results depend upon the interaction of forces which are allowed to work in accordance with their own inherent elasticities. Ideally it is possible to conceive of there being no employment in such a system but, in the actual system, the conception does not hold, which raises the whole problem with which Professor Pigou is concerned.

When the problem of unemployment is thus envisaged, it at once becomes apparent that the problem is not one of a particular time; it is a problem, the system being what it is, which must always be present to the intellect, regardless of whether unemployment actually exists or not. It is this which explains why, in this book, little or no mention will be found of such considerations as loss of markets, barriers to trade, exchange restrictions, and so on, which necessarily must loom large in discussions on the concrete aspects of the present problem. There is no reason in the nature of the case why Professor Pigou should not have written the book twenty years ago, or twenty years hence. Its character is such that it is of permanent value, or, at any rate, of value as permanent as free enterprise as the basis of an economic system is permanent. Even if this basis underwent that radical transformation which many assert they desire, it is fairly safe to say that the reasoning which the book contains would not lose all its relevance.

In one respect, however, Professor Pigou has been influenced by the circumstances of the time. Seeing that, in this time of monetary disorganisation, the problem of unemployment is being widely discussed as though it were solely dependent on a mal-operation of monetary factors, he has chosen to begin his analysis without reference to these factors. In other words, he conducts the first, and larger part of his analysis, in terms of wage-earners available for employment and of remuneration in the form of wage-goods, and introduces monetary factors at a later stage. While he considers that an analysis beginning from the money end would, if carried far enough, cover the same ground and yield the same results, one imagines that few of his readers will be able to resist the impression that he regards monetary factors as of secondary importance to the "real" factors with which he first concerns himself. In order to assist in the maintenance of an intellectual balance concerning the place of monetary factors in the theory of unemployment Part IV of the book cannot be too strongly recommended.

To write a book on unemployment "strictly academic in tone and content" at a time "when the tragedy of unemployment is of unexampled magnitude" requires courage and a large faith in the ultimate value of theoretical economics. It is good that Professor Pigou, who has so often revealed himself as one of the most humane of economists, should possess this courage and faith. Many will recognise now, and, if the economic world surmounts its present enormous difficulties with its present basis sufficiently intact, many more will recognise, that in writing this book at this juncture, he has been animated with a no less fervent desire for human welfare than those who write with more obvious practical aim and intentional popular appeal.

G.W.D.

The Portuguese Bank Note Case. By Sir CECIL H. KISCH. (Macmillan. 7s. 6d.)

THE Portuguese Bank Note Case was the result of an amazing fraud perpetrated upon a bank of issue, and in this book Sir Cecil Kisch presents a complete story of the *modus operandi* of the conspirators, gives a *résumé* of, and excerpts from, the rulings of the different courts before which the case against Messrs. Waterlow was tried, and finally puts forward a method by which the extent of the loss to the Bank of Portugal can be economically assessed.

The reader will be indebted to the author on three scores. The first part of the volume, in which the machinations of the conspirators, the method by which the duplicate notes were issued, and the eventual *dénouement* and conviction are all graphically described, is surely a sufficiently good sketch of criminality to make Mr. and Mrs. Cole's Superintendent Wilson wish he had taken a holiday in Portugal in 1925. Most old saws need occasional support; Sir Cecil comes gallantly, elegantly and overwhelmingly to one of the more hard pressed. This is so well done that one cannot help trying to spot the vulnerability of a plot that succeeded.

The legal solution of the claim against Messrs. Waterlow for the loss sustained by the Bank of Portugal, as a result of honouring illicit notes, is dealt with in the second part. One obtains an impression of the complexity of the issue from the juxtaposition of the judgements. The point that emerges here is that the circumstances that determined the loss sustained by the bank were not analysed,

and that if the "correct" economic solution were arrived at it was at the end of a suspect chain of economic reasoning. The number of angles from which the problem was viewed, the difficulties presented by the Bank being a bank of issue, and the incidental complication that Messrs. Waterlow could have quickly identified a proportion and, given time, have identified substantially the whole of the illicit issue, gives to this legal problem a complexity only rivalled by the plot itself.

In the third part, Sir Cecil presents the economic solution. He points out that the notes being inconvertible, the liability resulting from additional issue is contingent upon liquidation, and that the liquidation of a central bank is a probability sufficiently small to be neglected. The loss, therefore, is dependent upon the redemption of the illicit notes by good notes preventing the Bank issuing additional notes in exchange for assets valuable to the proprietors. Profitable action of this kind could be prevented in two ways. First, the policy of the Bank in regard to the external value of the escudo might have closed the door to any depreciation. Secondly the note-issuing power of the Bank might not have allowed any further issue. Hence if the policy of the Bank had allowed a licit issue equal to the illicit issue exchanged, or if the policy had allowed further issues which the note-issuing regulations would have prevented, then the Bank would have been the loser to the extent of the illicit issue less the assets recovered. If, on the other hand, as seems reasonable, the note-issuing power of the Bank was adaptable to the policy and if the policy was adaptable to the presence of the issue exchanged for illicit notes, then it is not easy to see that the Bank *per se* lost anything. And as the action was brought by the Bank, and not, for example, by the State, the economic damages would have been zero.

Hence, the solution is a function of the policy of the Bank and of the connection between the Bank and the State. On these grounds, the author is inclined to think that the Bank of Portugal emerged from these adventures in the rôle of hero, with prestige undiminished, finances strengthened and profits increased.

This last portion is an extremely instructive lesson in the principles of central banking, and no one can read this book without clarifying his mind on the subject of money emanating from a bank of issue.

J.S.

Financial Democracy. By MARGARET MILLER AND DOUGLAS CAMPBELL. (The Hogarth Press. 1933. pp. 132. 4s. 6d.)

IN this work, the authors set out to make a factual inquiry into the control of joint-stock enterprise. In turn they throw statistical light—though statistical is a heavy word for information that is always so much to the point—upon problems which are at once troubling the less trusting and more acute investors, and attracting the attention of those critics of society who are dissatisfied by modern methods of financing.

The difficulties in the way of investors seeking to exercise control over the activities of the companies they own, and, in the present state of things, the resultant almost inevitable oligarchic control of business are clearly shown. The help which shareholders can expect from their auditors, or even from the law, are proved to be of little use as aids to continuous direction by shareholders, and of dubious value even to the protection of ultimate interests. Yet, as the authors point out, the legal fiction is still maintained that shareholders themselves are the supreme directorial council of joint-stock enterprise. Is then oligarchic control so satisfactory that the legal fiction should be banished with actuality? Or, is current criticism of British directorates sufficiently well founded to make desirable a factual alteration of the situation? Miss Miller and Mr. Campbell proceed to discuss and illustrate the present business qualifications of directors, and though their criticism of existing practice is cautious, fair and conservative, the lack of any existing standard of qualification, perhaps inevitable, and certainly not easily remedied, is shown to be socially disconcerting and liable to open the door to grave abuse. Of the constitution of British directorates, some illuminating statistics are compiled. If directors are not as a class too old—and who can tell when ardour ripens into wisdom and experience decays into senility?—it is overwhelmingly shown that youth has little place in business. Below 45 years of age, unless the hereditary principle comes to the aid of youth and, perhaps, to the confusion of efficiency, Englishmen are debarred from control, though, perhaps as a result of the pain of waiting, after 70 years of age they cling tenaciously to office. If directors retired like professors, at the age of 65, "42 per cent. would come under the axe." Pluralism, with its advantages and disadvantages, is shown not to be so generally widespread as is thought, but the authors give one ground for suspecting that the real "captains of industry"

have widely diversified interests, or, at any rate, considerable directorial responsibilities. On these later points the reader is allowed to form his own conclusions, and like most conclusions that are worth making, they are not easily arrived at. This is in itself disquieting. The authors' own conclusion is typical of the new desire for precision in socio-economic life: they assert the present position of financial democracy to be anomalous in that a democratic façade hides from view, and therefore prevents appreciation and criticism of established oligarchy. They plead, therefore, for a definite decision: either that a measure of real control be secured for shareholders, or that reality be made legally definitive and the requisite changes brought about in the financial organisation of joint-stock enterprise.

It would be ungracious to make a *résumé* of this work without paying a tribute to the authors. There has been necessary a considerable amount of routine research for a book of such slender proportions, and the combination of research work and social criticism has resulted in a volume that is stimulating and provocative of thought, and, surprisingly on a subject of such controversial character, strictly impartial in tone. J.S.

Economics of a Changing World. By H. V. HODSON, with a preface by Sir Arthur Salter. (Faber and Faber. 1933. pp. 287. 7s. 6d.)

THIS is a re-statement of the principles of Economics in the new style. Mr. Hodson tries to be strictly objective; to him, prices, not utilities, are the foundations on which economic theory is built, and consumers' rent is banished with its Ricardian prototype. Only occasionally does he depart from strict objectivity: thus he appears to accept the application of the law of diminishing marginal utility to income, though it is hardly necessary to make a social case for the more equal distribution of income. To Alexander rather than to Pigou would we look for arguments for greater economic equality. This, however, is a small point. Mr. Hodson has made his re-statement with one eye on the clock, rather than with a view to a complete exposition of dynamic economics. He has limited his subject matter to topics bearing upon the present position, and he has much to say that is illuminating, but as a result he seems to waver at times between the economics of a changing world and the economic position of a changed world.

There are two possible opinions of the merit of taking a headlong plunge into the changing sea of dynamic economics, noting the while the eddies and uncharted currents that disturb the waters. It does, of course, get nearer to reality than the detachment of a static survey which visualises from the shore the tribulation that would be caused by a given gust of wind or swirl of tide. But for the uninitiated it may be overpowering ; if it gives him a glimpse into the forces and reactions that he wants to understand, and gives him the incentive to learn which static economics so lamentably lacks, then it is a good method. But if it merely gives him the ability to talk of trade cycles, investment and saving, balance of trade and reparations without more than a superficial understanding of the relevance and significance of these in any situation, then it is a bad way, for it popularises economic terms and economic remedies without popularising economic education. For those who know something of economics, this book is valuable : if Mr. Hodson has nothing extremely new to say (and it is very difficult to find anything new to say about " the subject of a *succès de scandale*") he presents problems from a new angle, often in a clearer manner, and always with an enviable sureness of touch, so that everyone reading it who is concerned about the fundamentals of economic disharmony will find something new and gain from it. For this reason, we are disposed to quarrel with Mr. Hodson's *obiter dictum* that economic thinking to be of value " must serve as the instructions to governments and other associations representing the public welfare " (p. 235). Were this so, most economists would be social parasites ! Or their value, calculated at the discounted value of their service, would hardly serve to pay for the paper on which the indictment was written.

Mr. Hodson makes a number of questionable statements. Thus, on page 71, where he concludes that the demand for exports will arrest a depreciation of the domestic currency : on page 243, that " practical communism is a shield and buckler against the overthrow of capitalism : " that " foreign capital provided a ready source for the re-equipment necessary " (for German industry), and that " the necessity for paying reparations reinforced the stimuli working in all countries towards a reduction of costs " (p. 169), which needs to be read with what he says on page 74 : his conclusions, page 247, on the merit of taxing, say, beer, read strangely in a work on dynamic economics in which, presumably, the effect of friction should be considered : the conclusion, on page 163, that prices will not rise on an increasing demand, because unemployment will exist, surely

neglects the almost inevitable increase in I over S that setting new plant in motion necessitates : that (p. 160) " profits are withheld from distribution until after the price of the products concerned have been realised : " that the shortage of gold is due to monetary mechanism rather than the efficiency of a natural product (p. 155), which may only be true in the same sense that wrecks at sea are due to the technical shortcomings of engineers and designers ; every misfortune is a win for nature in the struggle against humanity—or a defeat of humanity. If, however, one is going to cover a wide range of subjects in a small compass some dogmatism is inevitable.

J.S.

